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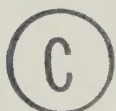
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INDEPENDENCE: A SIMULATION INCORPORATING THE MODES
OF INQUIRY OF CHARLES W. MORRIS

by



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A THESIS

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ABSTRACT

This study was concerned with the construction of a simulation game, Independence, and the formative evaluation which complemented the investigation. The simulation was designed for the new Alberta Social Studies Curriculum (1970) at the secondary school level but it also has applicability to the curricula in other Canadian provinces.

Mauritz Johnson's curriculum development model as adapted by Aoki (1970) provided a useful guide. A simulation is part of the instrumental content-- the instructional materials--available for the curriculum. When a teacher chooses instrumental content such as a simulation, his selection is designed to help achieve specified intended learning outcomes of the curriculum. Independence attempts to achieve some of the objectives of the Alberta curriculum by encouraging inquiry, a concept which is central to the new program. Participants in the Independence simulation are provided with a useful method of inquiry, that postulated by Charles W. Morris. The materials displayed to the student force him to determine those conditions which will influence his behavior. Once he has completed this designative phase of inquiry by answering the question "What is?", the student proceeds to set goals for the simulation by questioning "What is wanted?" This type of inquiry, designed appraisive inquiry, is

followed by prescriptive inquiry. In prescriptive inquiry, the participant in the Independence simulation selects a course of action which, according to his judgment, will achieve all or some of his goals. This phase of inquiry is guided by the question "What should be done to achieve what is wanted?" Once the selected course of action has been completed, the participant checks for any discrepancy between what was achieved and the goals sought. This process of error-control occurs during the debriefing discussions of the Independence simulation.

Simply constructing the Independence simulation proved insufficient to this investigation. Some means of evaluating whether Morris' method of inquiry had been incorporated adequately in the simulation had to be determined. The means selected was that of formative evaluation. As the term implies, evaluation occurred at several points during the formative stages in the development of the simulation. After an initial design of the game had been completed, two grade eight classes at Vernon Barford Junior High School, Edmonton, played the game. The observations made by the cooperating classroom teacher, the participating students and the investigator aided in the first revision of the simulation. The revised game was subsequently used at Stratford Junior High School, Edmonton, with two grade eight classes and at the University of Alberta, Edmonton, with the 1971 Summer session section of Ed. C.I. 468. The comments

of these two groups and their instructors guided another, final revision.

Although the evaluation of the simulation was subjective (non-empirical) it proved a useful means of gaining insights into the functioning of Independence. In addition, the formative evaluation highlighted several areas in which further investigation of the Independence simulation should begin. Empirical research should offer more substantive findings as to the extent to which Independence achieves its intended learning outcomes and as to the variety of uses to which this simulation might be applied.

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CHAPTER 1

INTRODUCTION

I. THE PURPOSE OF THE STUDY

The purpose of this study was to construct and evaluate a simulation game suitable for secondary school social studies courses in the Province of Alberta and in other provinces. The game which was constructed simulates those events during the period 1950 to 1960 that led to the independence of Nigeria. Nigeria, however, provided only a conceptual model. In the game itself fictional countries have been used and the "real" events have been disguised. Because the game simulates a struggle for freedom from colonialism, it has been named Independence.

II. THE PROBLEMS ENCOUNTERED

In dealing with the construction of Independence, the author encountered several key problems. First, a design or plan had to be formulated as a guide in constructing the simulation. The design which was selected employed both a curriculum development model and a theory of inquiry. Mauritz Johnson's discussion of the translation of curriculum into instruction aided in the curriculum development phase of the game construction. Charles W. Morris' theory of

inquiry provided the underlying theoretical basis for the game model.

Second, the game had to be constructed to fit the theoretical model. This presented several minor challenges. Initially a study of the literature on simulation provided insight into (a) the components of a simulation game, (b) research and experimental data which have been collected on games, and (c) steps to take in designing games. Next, several commercially published games were studied. Special attention was given to the components included in the games and care was taken to identify weaknesses and strengths related to each. At this time the events which led to the independence of Nigeria were chosen as a model of the game. Sociological, economic, political and historical material was read and the important factors involved were noted. (See Appendix B for a description of these factors). A model of the game was then formulated. This formulation included statements with respect to the number of participating groups, and their composition, the tentative resources in each and the probable classroom time required. Finally, the actual historical events were translated into the fictional material of the game. Johnson's design for translating curriculum into instruction and Charles W. Morris' theory of inquiry guided the investigator during this phase of the study.

Third, the problem of obtaining adequate "feedback"

as to the value of the game had to be resolved. Although third in this listing, this problem was actually a component in the preceding problems. The vehicle used to provide feedback was the concept of "formative evaluation" as discussed by Michael Scriven. By using this means of evaluating instruction materials, the investigator determined if any discrepancy between the objectives of the study and the result of the design had occurred. Indeed, it provided for the process of error control to occur at various stages in the development of the game.

III. THE SIGNIFICANCE OF THE STUDY

Commercial production has led to the availability of a large number of simulation games in virtually every subject field. There must be good reasons for constructing another such game. These may be the development of a concept not effectively provided for in other curriculum materials or the avoidance of weaknesses commonly found in other simulation games. The author of this study constructed Independence for both these reasons.

In the fall of 1971, most of the secondary school social studies courses in Alberta will be new. Initially some will be in the pilot stage, but by the fall of 1972 all schools should be on the new program. Accompanying the change in curriculum, there will be a change in materials available. Formerly, a textbook would provide the basic

material needed to teach a course. Most of the new courses have no recommended texts although there is a list of applicable materials that can be purchased for each course. The teacher or a group of teachers must select those materials that are appropriate. Unfortunately, there are limited resources for teaching many of the topics included in the new course.

Independence was designed to show how teaching resources may be developed by the practising teacher. Independence is intended to foster several learning outcomes. Most important is the model for problem solving which it provides for the students. This model unites valuing and action, both high priority objectives in the new Alberta Social Studies Curriculum. In addition, concepts such as the development of the nation-state, national unity, cooperation and conflict can be adequately covered. Because of its relation to developments in Nigeria, the game is applicable to the grade eight course which studies "Man, Technology, and Culture in Afro-Asian Societies." The game could be used at the grade nine level as a study of problems of national unity in "Western Societies," or as an example of the interdependence in decision-making by political leaders. The game could be useful in the grade eleven and twelve courses which provide for the study of "World Problems and Issues." Although the game can be related to several curricular topics, the teacher who employs it must decide

in advance which intended learning outcomes are to be emphasized. Otherwise he must develop appropriate intended learning outcomes and adapt the game to meet them. The game might be used to give students experience in decision-making, or to give the students a model of inquiry. For these purposes, Independence can be used at almost any grade level of the secondary school. When so used it must be adapted to the specific purposes of the particular unit of study to which it is applied.

Besides serving a need created by the introduction of the new social studies curriculum, Independence attempts to overcome the weaknesses commonly found in simulation games. Most games fail to indicate clearly the conceptual model on which they are based. In fact, it often appears that the game designer has proceeded without an underlying model. Independence, by using Morris' theory of inquiry and Johnson's model of curriculum development, exhibits a defined design. This becomes apparent both to the participants and to the person who is using the simulation.

Simulation games often fail to show a balance between structure and flexibility. Some are so unstructured that the teacher or the students virtually impose their own rules. Other games are structured to the point of being "teacher-proof." Programmed for easy use, these games tend to be overly restrictive and inflexible. Independence strives for adequate flexibility. The game initially is rigorously structured. Students' roles are delineated;

resources are specified; activities are governed. After each round of decision-making, however, the flexibility increases. The student can begin to redefine or expand his role profile, resources can change and the activities are less rigidly defined. At points during the game, participants are free to request different activities or to request an extension of the activities in which they are currently engaged. The instructor can change the format at any time. A number of useful alternative activities are suggested in the Teachers' Manual accompanying Independence. (Appendix A)

In an athletic sport, one of the most useful learning experiences is the "replay" of the game which occurs in the locker-room after the game is finished. At this time, players analyze, criticize, evaluate and discuss their performance and the performances of the other players or teams. In a simulation game, this "post-mortem" evaluation is called debriefing. Rather than the game being completed after one session, as in an athletic contest, a simulation game often takes one or two weeks of classroom time. As with athletic games, most simulation games are followed by a culminating debriefing session. In contrast to the athletic game, where the events are so recent that most players can recall them, participants in a simulation tend to forget many of the procedures and events. Independence tries to overcome this loss by debriefing after each session of decision-making as well as whenever the

instructor feels that something of value to the group has occurred. Opportunities also exist for the instructor to debrief with small groups during game play.

In summary, the investigator feels that this study is significant in two key ways. First, the simulation game which was constructed, is a contribution to the new social studies curriculum at the secondary level. With careful and thoughtful use, Independence could provide an interesting classroom experience. Second, the intent of the investigator in constructing the Independence simulation was to overcome some of the weaknesses commonly found in commercially available simulation games.

IV. SCOPE AND LIMITATIONS

This study is strictly a developmental one and as such is severely limited. The purpose of the study was confined to the development of the Independence simulation. Although formative evaluation occurred at several stages of the study, this evaluation was not empirical. The thesis presents only the procedure used in developing a simulation game. The study then is limited in the following ways:

1. No empirical testing of the effectiveness of Independence as a learning tool has been undertaken.
2. No attempt has been made to evaluate whether the intended learning outcomes are in fact achieved through playing the game.

3. The formative evaluation which occurred was purely subjective and much of the information gathered was intuitive rather than objective.

V. PLAN OF THE REPORT

This chapter has included the purpose of the investigation, the problems encountered, the significance of the study and its scope and limitations. Chapter 2 will deal extensively with the literature on curriculum and instruction as related to simulation and simulation construction. Chapter 3 will discuss the development of the game, Independence; Chapter 4 will review the procedure used in the formative evaluation made; and Chapter 5 will present a summary and a number of recommendations.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Construction of the simulation game, Independence, required that information from many sources be studied. The literature related to simulation games gave insight into the historical development of games for educational purposes, the research that has been done on games and the advantages and disadvantages to the use of games in secondary school classrooms. In order that Independence could be designed, the components of simulation had to be identified. For the purposes of this study, action, inquiry and error-control proved to be the most useful components upon which to focus.

This chapter will review the literature under the following major headings:

1. Simulation in Curriculum and Instruction.
2. The components of Simulation Games.

SIMULATION IN CURRICULUM AND INSTRUCTION

Simulation--Its Meaning

In the literature some confusion exists with respect to the meaning of the term simulation. To this point the terms gaming, simulation, and simulation games have been used synonymously. Not all writers, however,

support this common usage. Where simulation and gaming are defined separately, gaming tends to become equated with a contest, involving competition among participants and yielding a winner. Simulation, in contrast, stresses co-operative effort toward achieving common goals. By separating the two terms, the distinctions tend to become restrictive and thus meaningless as functional tools. Richard Dawson (1962) advocated the common usage of the two terms because:

When one attempts to apply categorical distinctions between simulation, gaming and Monte Carlo techniques to a wider range of problems, they tend to be restrictive. Given the general disagreement in the literature as to how classification should be made, the ambiguity of some of the classification schemes, and the young but rapidly developing field of simulation in the social sciences, it seems most useful to regard simulation as a general term referring to constructing and operating on a model that replicates behavioral processes; [and] gaming as a type of simulation [p. 8].

The general definition to be employed throughout this thesis was supplied by Dawson who defines simulation as:

The construction and manipulation of an operating model, that model being a physical or symbolic representative of all or some aspects of a social or psychological process [p. 3].

James Coleman (1968), using Dawson's definition as his basis, defined a simulation game as:

a game in which certain social processes are explicitly mirrored in the structure and functioning of the game. The game is a kind of abstraction of these social processes making explicit certain of them that are ordinarily implicit in our everyday behavior [p. 30].

This definition incorporates the characteristics Mead described as necessary in the game but phrases them in succinct, workable terms.

Simulation as a general term is applied to several different devices. Some simulations are conducted in total by computers. The variables of the model are fed into the computer and experiments in which the variables are manipulated are undertaken. The advantage of this type of simulation lies in the power of the computer to replicate the same experiments as many times as a researcher desires. Often, man will be combined with the computer in a second kind of simulation. In such experiences, the human participant carries out decision-making processes according to directives received from the computer. Most management training games and some simulations designed for children are this kind. The final type of simulation is designed for human participants and is carried out without the aid of a computer. This type of simulation leads to games in which participants, working individually or in teams, make decisions on the basis of information provided through the game materials. Independence is such a game. All simulations which involve man, demand of him a certain amount of role playing. All simulations are designed to serve one or all of the following purposes: (1) to improve the design of systems, (2) to develop a body of knowledge, (3) to train and/or (4) to teach (Dawson, 1962).

The Historical Development of Games

The use of simulation games in social studies

classrooms is a recent phenomenon. Periodical indexes substantiate this claim. Before 1963, few articles were written on games, but each subsequent year has yielded to the growth of writing in this field. Currently writing on this subject is so prolific, that several articles appear monthly.

Writers tend to credit games to one of two historical bases. Many claim that war games were the forerunners of modern simulation games; others support the idea that simulations had their historical roots when models of processes or objects were first created.

War games are probably as old as recorded time. Chess was one of the first popular war games. From chess early tacticians gained the idea that war manoeuvres could be practised before battles actually occurred. Napoleon was the first major leader to implement gaming as part of his officers' training. By the end of the 19th Century, the use of war games had spread to most countries in the western hemisphere. Today, "crisis gaming" forms an integral part of the training of armed forces personnel (Griffin, 1965).

Another speculation about the origin of simulation equates it with the development of theoretical models. When looked at from this point of view, simulations again begin with recorded time. Any time man pictured a process or an idea, he was simulating that process or idea. Egyptian hieroglyphics did this; Leonardo da Vinci's models of flying

machines did it; artists' drawings did it. But simulations were not only pictorial models. Whenever something was constructed to train individuals in tasks, simulators were being employed. This ability to develop devices for training individuals, has led to the use of simulations in a variety of fields including driver education and the training of astronauts. The advantage of such training devices obviously lies in the non fatal nature of the experiences. In other words, disastrous mistakes can be made on a simulator without costly consequences resulting.

Both of the interpretations given above have much to offer those developing present day simulations; both have probably influenced gaming as an aid to teaching. Both justify our interest in the historical use of games in education.

Famous educators (Mead, 1934; Piaget, 1948; Bruner, 1966) have acknowledged the importance of gaming. One of these men, George Herbert Mead (1934) wrote a description of the value of the game. He stated that:

The game is . . . an illustration of the situation out of which an organized personality arises. In so far as the child does take the attitude of the other and allows that attitude of the other to determine the thing he is going to do with reference to a common end, he is becoming an organic member of society. He is taking over the morale of that society and is becoming an essential member of it. He belongs to it in so far as he does allow the attitude of the other that he takes to control his own immediate expression. What is involved here is some sort of an organized process. That which is expressed in terms of the game is of course, being continuously expressed in the social life of the child, but this wider

process goes beyond the immediate experience of the child himself. The importance of the game is that it lies entirely inside of the child's own experience, and the importance of our modern type of education is that it is brought as far as possible within this realm. The different attitudes that a child assumes are so organized that they exercise a definite control over his response. In the game we get an organized other, a generalized other, which is found in the nature of the immediate experience of the child and it is that organized activity in the child's own nature controlling the particular response which gives unity, and which builds up his own self [p. 160].

This passage is pregnant with meaning. The idea of the game being an illustration of the situation implies that certain elements of the environment are deliberately selected and displayed to the child. The child's ability to play a role determines "the thing he is going to do with reference to the common end." This indicates that role-play (taking the role of the other) and decision making are intrinsic parts of the game.

Mead (1934) discussed the importance of role-taking in greater detail when he stated:

. . . if when we contrast play with the situation in an organized game, we note the essential difference is that the child who plays in a game must be ready to take the attitude of everyone else involved in that game and that these different roles must have a definite relationship to each other [p. 151].

Further, these experiences must be so structured as to be of some value; hence, some sort of "organized process" should be found in the game. This organized process Mead (1934) described as follows:

In the game, then, there is a set of responses of such others so organized that the attitude of one calls

out the appropriate attitudes of the others.

This organization is put in the form of rules of the game. Children take a great interest in rules. They make rules on the spot in order to help themselves out of difficulties. Part of the enjoyment of the game is to get these rules. Now, the rules are the set of responses which a particular attitude calls out [p. 152].

One of the most important attributes of the game related to the way in which the game made use of the child's previous experience. Mead (1934) explained this concept further:

What goes on in the game goes on in the life of the child all the time. He is continually taking the attitudes of those about him, especially the roles of those who in some sense control him and on whom he depends. He gets the function of the process in an abstract sort of a way at first. It goes over from the play into the game in a real sense. He has to play the game. The morale of the game takes hold of the child more than the larger morale of the whole community. The child passes into the game and the game expresses a social system in which he can completely enter [p. 160].

Finally, Mead acknowledged the important place of education in developing games which could draw upon the child's previous experience.

While it was in the 1930's that Mead described the value of games and advocated their use in the educational process, educational institutions were slow to employ them as aides to instruction. It took twenty years before the first educational institution implemented gaming as part of the curriculum. Taking a lead in the use of this innovation, business administration schools introduced simulation into management training courses in the 1950's. Since the 1960's the use of games has spread to such disciplines as sociology

and political science. Since the mid-sixties games have been designed for secondary school classes.

Empirical Evidence on the Effectiveness of Games

Simulation as an instructional technique has met with varied and inconsistent reactions. Boocock and Schild (1968) described three phases in the classroom use of simulation games. Phase one, defined as the pre-1962 phase, was characterized by enthusiasm for simulation techniques, by acceptance on faith without demanding empirical proof, and by assuming that the involvement displayed by participants implied that learning was occurring. Between 1963 and 1965, during phase two, preliminary research showed inconclusive results as to the value of simulation games. This early research led researchers to conclude:

(a) that games are not a panacea for all educational ills; (b) that the games in their present form have serious flaws; and (c) that neither standard tests nor the relatively crude instruments designed specifically to evaluate a particular game or games are adequate or sufficient measures for the impact of the games [p. 16] (Boocock and Schild, 1968).

Finally, since 1965, phase three has been characterized by realistic optimism. During this phase field testing of simulations in a variety of contexts has shown that the games tested were valuable in a number of ways.

The research in the stage of realistic optimism began with the work of James Coleman and a number of his Ph. D. students at Johns Hopkins University. Boocock (1966)

investigated the effects of games on student learning. Questionnaire and interview data were gathered. Statistically, the only significant finding was the level of student interest and the number of students indicating a desire to replay the game. Less than ten percent of the participants responded negatively. Students also indicated that they talked about the simulation experience more than they usually talked about school activities.

Studies conducted by Boocock and Coleman (1966) indicated three other qualities of games. First, students acquired real empathy for the processes simulated and gained an appreciation of the complexity of real-life situations. Second, students gained confidence in their ability to control complex situations and to plan the actions they took. Third, students gained "an increased sense of the interconnections between the various aspects of a situation [p. 234]." In other words, they began to see the interdependence among elements in the environment.

Eugene Baker (Boocock and Schild, 1968) investigated the use of simulation in teaching American history. Baker used 131 eighth grade students and compared the simulation approach with textbook-based instruction. His results were impressive. Significant differences at the .01 level in the amount of immediate learning favored the simulation technique. In a retest session three weeks after the game had been played, the amount of retention was significantly

higher for the simulation group at $\alpha = .05$. Statistically positive attitude change also occurred in the simulation classes.

In another study from Johns Hopkins University, Inbar (Boocock and Schild, 1968) found that group effectiveness was the major determinant of the impact of the game session on the participants. This had implications for designing simulations, illuminating the need to strive for optimal group size. Inbar also found that willingness to participate in the simulation depended on interest. He felt that careful handling of players before the game began determined, to a large extent, the arousal of the necessary interest.

E. O. Schild (Boocock and Schild, 1968) studied the extent to which games encouraged the use of effective strategies in decision making. He observed that a rational exchange of ideas developed and that the strategies used by the players improved with each round. Improvement continued if the game was replayed, implying that the behavior of the participants was shaped by the game experience. In her research, Boocock (1966) also concluded that repeated game experiences were valuable. Rather than reusing the same game, she concluded that:

our feeling now is that the most powerful, deep and lasting effect of games with simulated environments comes through experience with a variety of games, so that students gradually acquire a set of general strategies or frameworks for decision making, plus

confidence in their ability to act effectively in a number of real-life situations [p. 197].

The findings described above generally reinforce the realistic optimism of the third phase in the development of games. However, not all of the research was so positive. Cherryholmes (1966) undertook research guided by the following hypotheses:

- H₁: Students participating in a simulation will reveal more interest in a simulation exercise than in more conventional classroom activities.
- H₂: Students participating in a simulation will retain more facts and principles of information than by studying in a more conventional manner.
- H₃: Students participating in a simulation will retain information learned longer than if they had learned in a more conventional manner.
- H₄: Students participating in a simulation will acquire more critical-thinking and decision-making skills than will students in more conventional classroom activities.
- H₅: Students participating in a simulation will have their attitudes significantly altered relative to attitude change by the conventional classroom methods [p. 5].

The results of six research studies were analysed in an attempt to find support for these hypotheses. Hypothesis 1 was accepted but all others were rejected. While disappointing, Cherryholmes' study did not discourage research into simulation games. Some of her hypotheses were rejected on the basis of one or two studies only. Since her article was published, Baker has found support for hypotheses 2 and 3. Boocock reported from surveys of informal student response that attitudes are changed and that feelings of efficacy and empathy do increase.

Rather than discouraging the use of simulation, Cherryholmes' study cautioned researchers to evaluate simulation techniques critically before adopting them for use. This type of evaluation is necessary before any teaching technique should be implemented. Dawson (1962) suggested the use of the following criteria for selecting simulations:

(1) Applicability: Will the technique adequately solve the problems involved in the research or training exercise?

(2) Cost: Are the costs in terms of time, money, equipment required and the effort expended less than those for any other technique yielding comparative results?

(3) Simplicity and communicability: Is it the least complex and most comprehensible technique, considering the persons who might be using it and those to whom the results might be communicated [p. 12]?

If these criteria are considered, realistic use can be made of simulation techniques.

One major caution should be added about the findings

of the research quoted. All the findings have a common characteristic in that they are valid only for the game or games studied and in the context in which the research occurred. In other words, one should not generalize beyond the study itself.

The Advantages and Disadvantages of Gaming

Within the limits indicated above, the research on games indicates that the following general advantages and disadvantages to game use can be enumerated. First, virtually all authors in the literature agree that games are effective motivational devices. Students enjoy participating and the pressure of decision-making encourages continuous, sustained interest.

A second advantage of simulation techniques is that students learn from their mistakes. Mistakes, however, can be made without the censure that would result in the real situation. Students realize that they are playing a game and are not threatened by the prospect of making errors. This does not mean that games are taken lightly. Students still desire to win--to reach their objectives--and this desire forces them to consider the probable consequences of making each decision and to plan their strategies accordingly. Abt (1970) has found this "non-threatening [p. 75]" nature of the game experience to be especially valuable with underachievers, since it gives them an opportunity to

make decisions without fear of punishment.

Another advantage of simulation techniques is that the game brings the future into the present. To return to Mead (1934) the game gives the child vicarious experience in the social processes he will need when he becomes an "essential" and an "organic" member of society, but while doing so works from within the child's own background of experience. Students practise manipulating variables and gain greater confidence in their ability to handle complex social systems. This has been found to be advantageous with ghetto children (Taylor, 1968).

From the teacher's perspective, simulation is valuable because it affords an 'escape' from the traditional role of judge. The child's behavior during the game session is not graded. The teacher, of course, still controls the class, but most of the discipline and evaluation of the game is intrinsic to the game itself. Boocock and Coleman (1968) maintain that "the discipline arises internally, from the necessity to obey the rules if the game is to continue [p. 219]." In addition, if the player reaches his goals, he knows that his decisions were wise; if not, he is able to see where they failed and why.

The self-evaluation which educational games encourage yields another advantage. Games provide the student with opportunities to discover and verbalize his feelings and to modify and develop his values intelligently. As he gains confidence in his ability to make rational decisions, the

student gains a sense of his own worth.

Another advantage of simulation is that students develop an increased sense of tolerance. By taking the role of an "other," children learn about some of the stresses and pressures that face these people. Also, the pupils gain tolerance for their own mistakes and for the mistakes of others.

Through interaction, games teach participants how to work effectively with others. In the game session, children experience cooperation in attaining goals, competition in relations with other groups, conflict and its resolution, and power and its impact on group behavior. Each of these experiences is valuable in adult interaction and will be used by the students repeatedly throughout life.

Finally, and this is a quality that concerns most educators, simulations can be used to teach both skills and content. The communication skills of persuasive argument, public speaking, and rational discussion are encouraged. Problem solving skills such as defining the problem, setting objectives, hypothesizing, gathering and analysing data, and making decisions based on evidence, are developed. In addition, knowledge of factual information and concepts can be gained from some games.

The list of advantages to simulation in education is impressive, but consideration of the weaknesses and disadvantages of gaming is equally necessary. Probably the

most serious weakness of games that have been produced commercially is inconsistency in quality. Although the advantages listed are desirable in any educational device, few simulations produce all the characteristics mentioned. In fact, most games developed for use in the classroom have not been subjected to rigorous empirical testing.

Besides varying in quality, games can be expensive in terms of both time and money. Teachers and students will need to spend time in preparation and organization for the game activity. In addition the game will usually require more class time to cover a concept than if it were taught in a more conventional manner. An example of the amount of extra time that might have to be spent in preparing for a simulation is indicated for the Inter-Nation Simulation. "At least three class periods of lecture, and discussion of the model are needed to prepare students for simulation participation [p. 117]." (Majak, 1968) In addition to demanding extra time and energy, it is claimed that the operation of a game may tend to disrupt the whole routine of a school. Often changes in timetable and room assignment may have to be arranged. As well, the teacher using the game may be the object of criticism from his colleagues because the students participating in the game will tend to be excited and difficult to settle in their other classes.

It has been stated above that games require a great deal of time to prepare for. Simulations tend to be costly

in other ways as well. Once a game is acquired, it has to be adapted to the situation in which it is to be used. This often requires the rewriting of role descriptions or other descriptive materials or the changing of events to more closely resemble the topic under study. In other words, the game frequently provides only the basic model. In adapting the simulation to meet his needs, the teacher grafts onto that basic model the information that he plans to use. All of this requires time. Moreover money will be needed to reproduce the modified simulation. Similar difficulties occur when the practicing teacher tries to develop simulations. Once he has designed the game and it has been played, revisions may be needed. Often two or three revisions will prove necessary and with each revision, duplication of the material will be required. The cost which this necessitates in terms of the teacher's time and money is frequently prohibitive.

Games tend to have other limitations. Most severe is the difficulty of testing the learning which takes place during and after the playing session. Abt (1970) described the difficulty of evaluating realistically the effectiveness of the game experience:

the effectiveness of an instructional game in improving the decision-making ability of students may be quite impractical to test because of the very long-range consequences involved. For example, even if a student playing an economic game does not memorize any terms or theories, or does not demonstrate any measurable change on conventional exams, perhaps ten years later he will make a much better economic decision [p. 112].

Despite the difficulties noted above teachers are often pressured to gather marks on each pupil and many feel that every class experience should be evaluated and a grade assigned.

A third criticism of simulation games is sometimes offered by instructors who have used them. Some teachers feel threatened by the change of their role that the game session demands. The teacher exerts indirect control and students generally move about freely and talk amongst themselves. "Both teachers and students may feel threatened by the shift away from teacher domination [p. 45]." (Nesbitt, 1970). It has also been found that:

the student who feels uncomfortable in a situation that is not clearly structured, so he knows where he stands, may not like the comparative freedom and ambiguousness of many game sessions [p. 45] (Boocock, 1966).

With careful handling, most of the disadvantages involved in the game situation can be overcome. Flexibility is frequently built into timetables so that innovative techniques can be used. Problems of evaluation are difficult to solve but careful selection of games can ensure that the activities which occur are educationally sound. It can only be reiterated that caution should be used in decisions to implement games as part of a curriculum. Instructors should make sure that the games will be of value and that they know how to use them effectively.

With this realistic picture of gaming foremost,

attention can now be focussed on the essential components which should be incorporated in a simulation game. All simulations require decision-making. Decision-making implies two complementary and necessary processes: the process of action and the process of inquiry. Once inquiry and action have led to a decision, the decision-maker must evaluate the outcome of his action. Through a third process, that of error-control, the participant evaluates what happened by comparing the outcome with what he had wanted or expected to occur. If any discrepancy occurred, he must propose some method of correction. These three processes (action, inquiry and error-control) are the fundamental components which must be an integral part of any simulation game. The second part of this chapter reviews the related literature on these components.

THE COMPONENTS OF SIMULATION GAMES

Action

One of the most important components of a simulation is action. Action, actor, react, interact are derivatives of the verb to act. All suggest concepts which are important to simulation games. Action implies a process and the process of action takes place within the context of a social system.

A classroom forces pupils into a specialized social system. Simulation games attempt to take that social system and make it functional and adaptive. Buckley (1967) stated

that an adaptive system should manifest:

(1) some degree of "plasticity" and "sensitivity" or tension vis-a-vis its environment such that it carries on a constant interchange with environmental events, acting on and reacting to them; (2) some sources of mechanism providing for variety, to act as a potential pool of adaptive variability to meet the problem of mapping new or more detailed variety and constraints in a changeable environment; (3) a set of selective criteria or mechanisms against which the "variety pool" may be sifted into those variations in the organization or system that more closely map the environment and those that do not; and (4) an arrangement for preserving and/or propagating these successful mappings [p. 63].

In order to foster the development of such an adaptive system, the simulation must force its participants to become actors. The conditions with which the game begins must create some degree of tension between the actors and the environment. It must outline the variables of the system and create problems which are preventing that system from functioning effectively. In addition, participants must have a variety of strategies or adaptive behaviors from which to choose as well as some criteria for selecting the most advantageous strategy. Finally, games must provide opportunities for the actors to evaluate what has occurred and to preserve behaviors which successfully resulted in the reduction of tension.

The adaptive system just described becomes functional only through the process of action. Parsons and Shils (1951) stated that the action process must contain the following fundamentals: an acting unit, a set of objects of orientation, and an organized plurality of orientations of action.

On the basis of these fundamentals, the actor makes a selection of a course of action. Parsons and Shils maintained further that an individual's orientation toward an object was governed by two inseparable modes: one of giving the object significance through valuation of the ability of that object to satisfy needs, and the other of assessing the properties of that object. The individual selects that which is accessible and that which has some potential for need gratification. From his orientations the individual gains:

a conception . . . of the situation in terms of what he wants (his ends), what he sees (how the situation looks to him), and how he intends to get from the objects he sees the things he wants (explicit or implicit normatively regulated "plan" of action) [p. 54].

This process involves evaluation and ultimately an act of choice.

George Herbert Mead (1938) divided the act into three stages. Before action begins the stage of impulse lets the actor perceive the environment and stimulates in the consciousness an attitude of attending to the situation. This attention is selective permitting the individual to distinguish certain variables from the field of stimulation. It is in this stage that the objects of the environment gain orientation from the individual. Action does not always occur once impulse has begun. Only when that impulse indicates that a problem is present will action follow. Once the process of action is initiated, it follows three

stages: perception, manipulation and consummation. The importance of the stage of impulse is that during this stage a problem is perceived and the mind can, through the use of imagery, see a possible solution. The actor manipulates symbols through reflective thought and with the knowledge that he has gained from past behavior, chooses what he believes to be a useful course of action. Ultimately, the taking of that course of action will determine its usefulness.

When action is about to begin, the stage of perception is foremost. The individual through the senses becomes sensitive to and cognisant of the object of perception. Subsequent to this, in reflective analysis, the actor analyzes the field of his perception and organizes the objects he has perceived within the context of that field. Simply stated, he has organized his environment into a reality and has analyzed and reconstructed each object of significance in that environment. His organization will be dependent on both past experience and future expectations. By the end of the stage of perception, the environment is structured. The organism then proceeds to manipulate the objects of importance by means of physical contact. The actor proposes and analyzes alternative manipulations and finally decides which of the alternatives is of most value to the solution of the problem. Once selected, this alternative becomes the course of action which is taken. Mead designed the stage of physical contact as that of

manipulation and the stage of action as that of consummation. The characteristics which are in evidence at these three stages are respectively, want, effort and satisfaction.

Much of the success of the process just described--the perception, manipulation, and final consummation of the act--depends on reflective thinking. Reflective thinking is simply the ability of the actor to think things through before taking overt action. He consciously tests the probable consequences of each alternative course of action, carefully analyzing each according to his past experience. Reflection is a process of thinking in relation to the way that the problem could be resolved; it is a method of problem-solving, a method of inquiry.

Inquiry

Charles W. Morris (1964) expanded Mead's three stages of the act into a defined process of inquiry. This process is a useful way of structuring reflective thinking into an efficient problem-solving tool. As Morris stated, "a problem arises only in a particular situation. Action encounters obstacles, and inquiry has as its aim the resolution of the problem so that action may proceed [p. 26]." Continuing, he defined inquiry as a "reflective process involving signs and directed to solving a problem [p. 26]." Inquiry which deals with problems of what has happened, is happening or will happen is said to be designative inquiry.

Inquiry which deals with problems of what to do is said to be prescriptive inquiry. And inquiry into problems of what to accord preferential behavior is appraisive inquiry. Inquiry can be predominantly appraisive (A), prescriptive (P), or designative (D), but usually each phase of inquiry is involved to a certain extent. Figure 1 below expresses this idea more clearly.

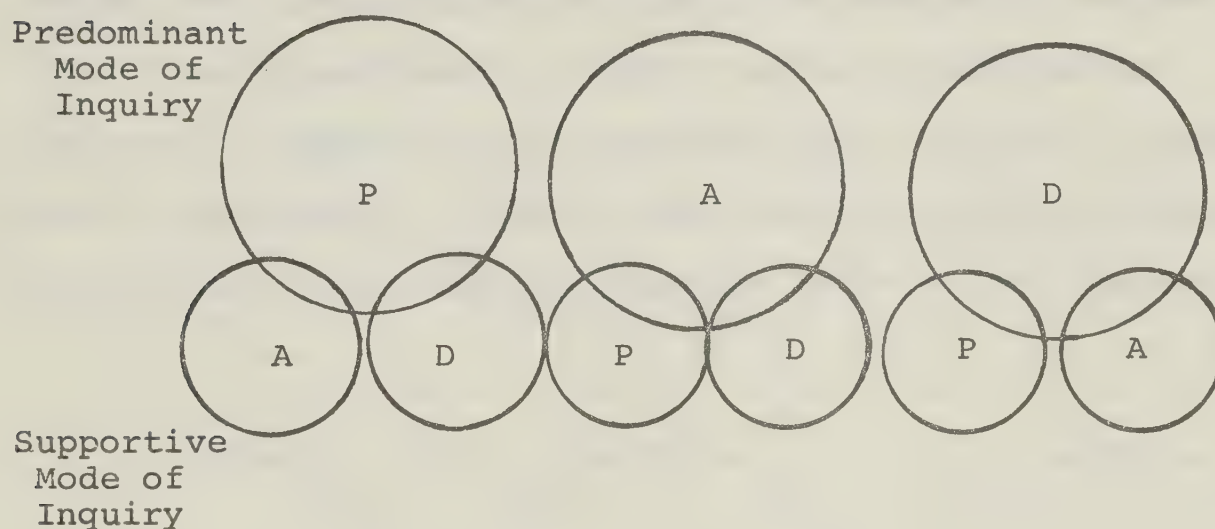


FIGURE 1

THE RELATIONSHIP OF THE THREE MODES OF INQUIRY

When confronted with a photograph of a slum household, the predominantly designative inquirer might raise the following questions: How much room does this family have? How many children are in this family? Why is this area run down? How much money per month does this family have on which to live? . . . The appraisive inquirer would ask:

Are these the conditions that I want for my fellow man?
 Do I want a more comprehensive welfare system to take care
 families such as these? . . . Finally the prescriptive
 inquirer would ask: What can be done to improve the living
 conditions of this household? How can we improve the educa-
 tion of the major wage earner? . . . To have asked such
 prescriptive questions however, the inquirer must first have
 determined what the existing qualities of the situation are;
 he must have decided that a more desirable state is needed;
 and he must have decided on a positive course of action.

As stated above, inquiry can be predominantly
 designative, appraisive or prescriptive. Figure 1, however,
 can be misleading. Figure 2 might more accurately represent
 the complexity with which the three modes can be interrelated.

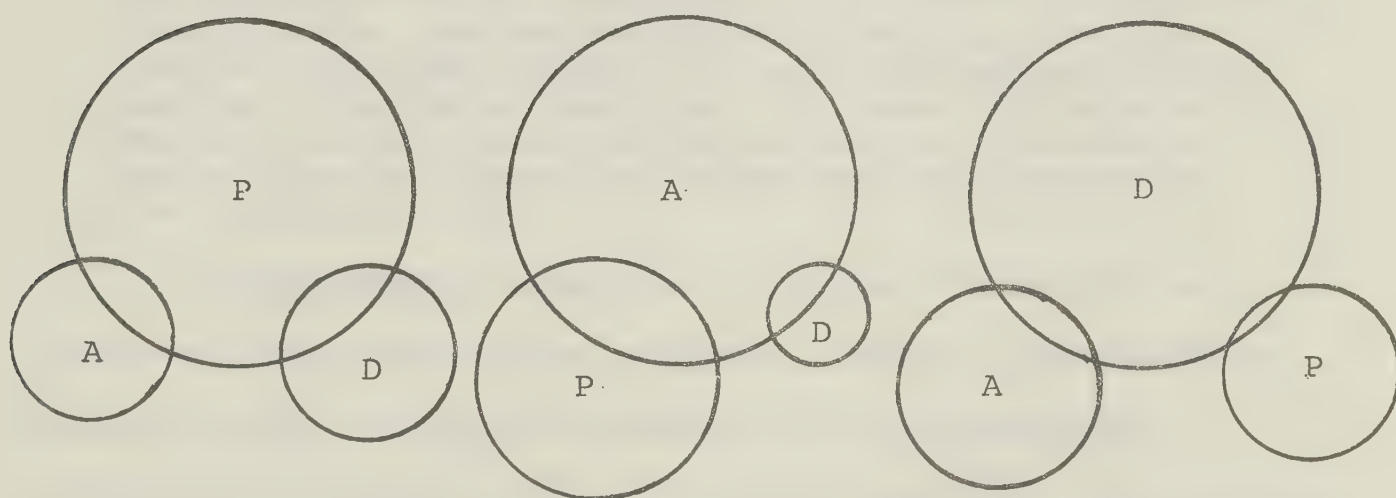


FIGURE 2

THREE INQUIRIES

Three different inquiries are shown. It becomes obvious that the proportion of time or energy spent in each type of inquiry varies considerably. Similarly, the predominant inquiry preference of a person also differs. At one time an inquirer might choose designative inquiry; at another, prescriptive inquiry. Direct action takes place after prescriptive inquiry. Prescriptive inquiry is directed toward reaching some appraisive goal and the inquirer must choose the action he believes to be most likely to achieve that goal. Morris (1964) terms this "evaluative inquiry." He described it as follows:

In evaluative inquiry one decides upon the course of preferential behavior--which objects are to be accorded preferential behavior and which course of action toward those objects is to be given preferential status. Knowledge is of course relevant to this process of evaluation, and the more scientific it is the better. One needs to know as fully and as accurately as possible the consequences of accepting one or another operative or conceived value. Therefore, as a phase of evaluation, one considers the consequences of various possible courses of preferential behavior. Evaluative inquiry, however, does more than this: it seeks for objects to which preference is to be given and for a course of action that will meet the value problems imposed by the inquiry [p. 29].

Independence relies on the concept of action as discussed above and on the method of inquiry postulated by Charles Morris. Each participant in the Independence simulation becomes an acting unit, an inquirer. The environment is organized to simulate a specific social process, a defined system. Everyone within that system has a defined role to play and a position to take. The members of the

system are intricately interdependent. In the game there are five groups of six members. Each group sets its goals and experiences a number of obstacles or problems impeding the attainment of those goals. To return to Parsons and Shils (1951), the decision maker conceptualizes "the situation in terms of what he wants, . . . what he sees, . . . and how he intends to get from the objects he sees the things he wants [p. 54]." Or in Mead's terms, the individual progresses from the stage of perception to the stages of manipulation and consummation. Or as Morris would propose, the inquirer moves from designative to appraisive to prescriptive inquiry. The game forces participants to become prescriptive inquirers who ultimately must take some action toward achieving their goals.

In unstructured inquiry, the individual would have as many courses of action available as he could define. Logically, he might be faced with an unlimited number of strategies from which to choose. If the inquiry that the individual undertook were to be intellectually honest, he should analyze each alternative carefully in the light of its probable consequences and finally choose the most advantageous course of action. Rarely is inquiry so efficient. Parsons and Shills (1951) stated that:

the emphasis on choice, choice alternatives, patterns of choice, etc., which is central to this scheme of analysis should not be interpreted to mean that the actor always deliberately and consciously contemplates alternatives and then chooses among them in light of a value standard [ftn p. 70].

As Mead implies, our value orientations may color our perception of possible courses of action, disguising ones that might be obvious to others and emphasizing other less likely courses of action. Unstructured inquiry, then, is often a process of "muddling through [p. 293]." (Lindblom, 1966).

Of necessity Independence demanded a more structured inquiry process. Morris' basic model was interpreted and extended. The diagram on the following page of the inquiry process was then developed. Initially this model is designed to structure completely the inquiry which takes place. With each successive round of game play, however, the structure becomes both more flexible and more complex. Considering together the model outlined in Figure 3 and the models showing the interrelationships among the three modes of inquiry (Figures 1 and 2) one recognizes the complexity possible in the inquiry process. The combined models can be seen in Figure 4. In Figure 4 (see page 38) the essentially linear model of Figure 3 has become much more cyclical and hence more complex.

Action and inquiry form two of the major components of the Independence simulation. A third important component is that of error-control. Error-control, in Independence, is concentrated in the debriefing exercises which occur throughout and at the end of the game play.

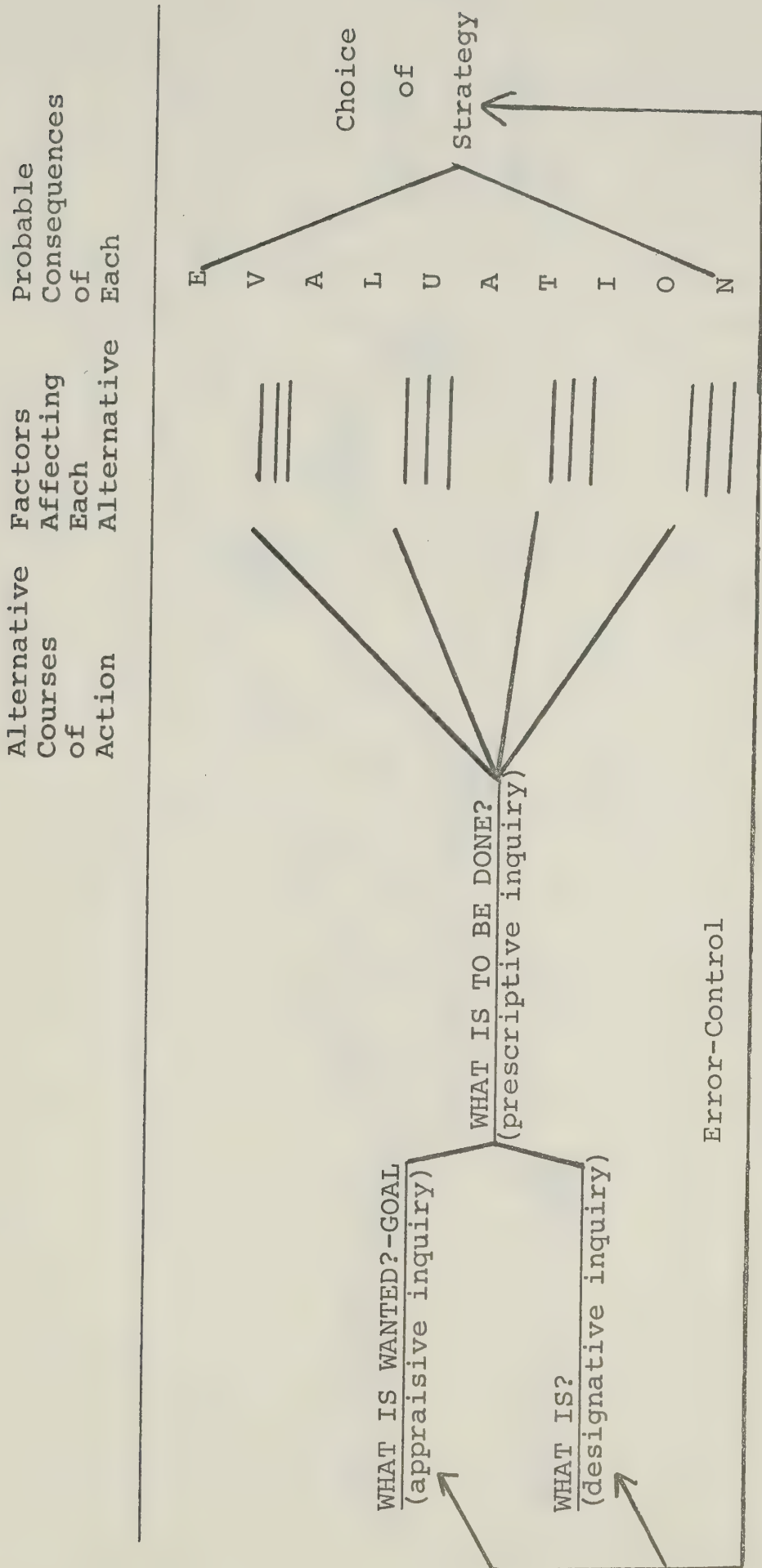


FIGURE 3
THE INQUIRY PROCESS

Alternative Courses of Action

Factors Affecting Each Alternative

Probable Consequences of Each

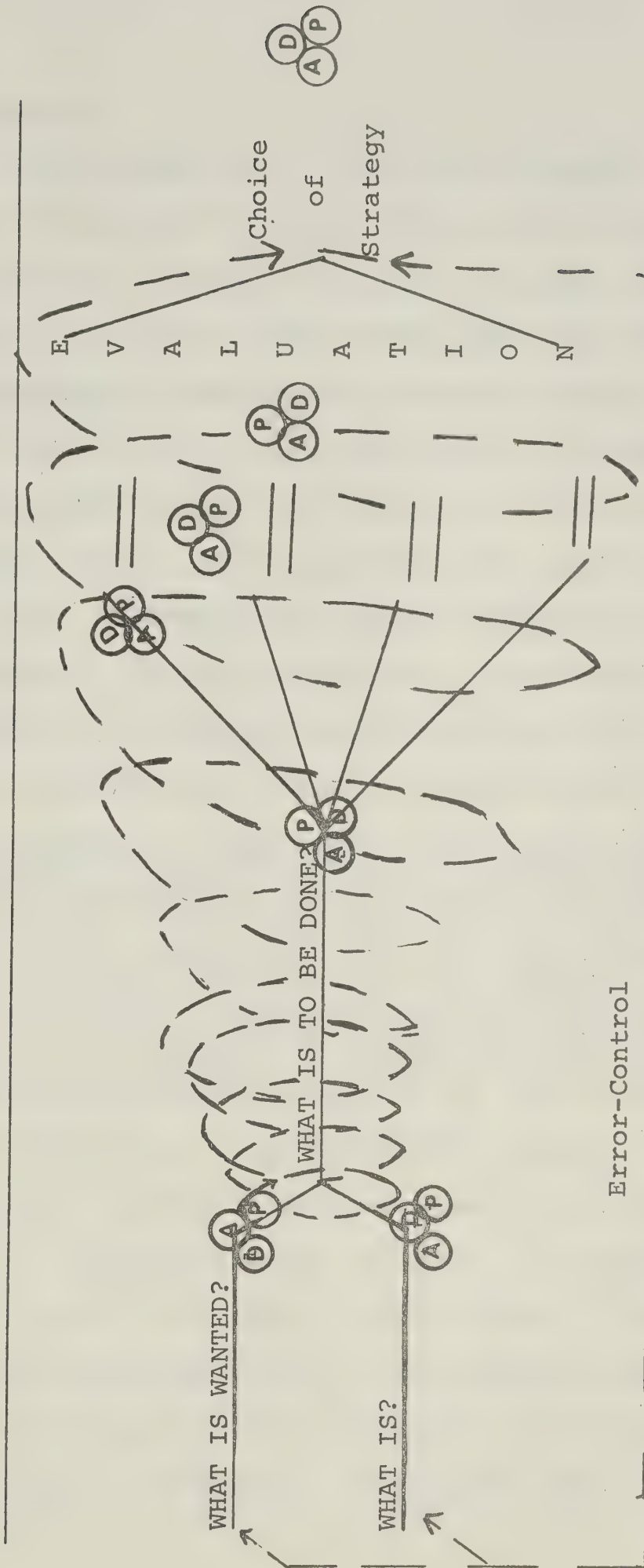


FIGURE 4

THE INQUIRY PROCESS

Error-Control

Error-control is a stage of evaluation designed to analyze the outcome of action and to organize the experience into a rational, usable structure. In most simulation games, debriefing or error-control occurs once the game is completed. In Independence, debriefing occurs at several points throughout game play as well as at the end of the game. The debriefing that occurs is intended to foster a learning experience similar to the process that occurs in Mead's (1934; 1938) conception of reflective thought or reflective intelligence. Through reflection, an individual can organize and structure his conduct with reference to the environment. Reflective behavior is a sign of intelligence and:

intelligence is essentially the ability to solve the problems of present behavior in terms of its possible future consequences as implicated on the basis of past experience--the ability, that is, to solve the problems of present behavior in light of, or by reference to, both the past and the future; it involves both memory and foresight. And the process of exercising intelligence is the process of delaying, organizing, and selecting a response or reaction to the stimuli of the given environmental situation [p. 100] (Mead, 1934).

Although reflection is an individual process, it develops in the social system. Its development can be advanced with the aid of the social group involved. A simulation game creates a new if artificial social system. Therefore, much of the past experience that an individual brings to the game is of little value to him in learning to function in this foreign social environment. After one round of play, the

student will have some past experience upon which to draw. With each subsequent period of decision-making, his past experience increases. Through guidance of the participating group, the instructor can encourage its members to verbalize about occurrences in the game. In this process, students can learn to assess what happened. Error-control enters the procedure as the inquirer evaluates and determines whether any discrepancy between what was sought and what was achieved arose. The communication which occurs in this debriefing discussion is invaluable to this process of error-control. Although reflective thinking is an individual process, the experience of a number of individuals, when faced with a common problem, can benefit the group as a whole. Participants in a simulation face such a common problem and the actions of one individual or group often greatly affect those of another. Debriefing reveals such interrelations and the students participating can organize their own experiences as well as those of the others. In subsequent rounds of game play, each participant can draw from a larger background of experience than he would have had without the debriefing discussions.

All reflective thought takes place through the manipulation of symbols and signs. Morris (1964) detailed the sign process, which he called semiosis, as:

a five-term relation--v, w, x, y, z--in which v [the sign] sets up in w [the interpreter] the disposition to react in a certain kind of way, x [the interpretant],

to a certain kind of object, y [the signification]
(not then acting as a stimulus), under certain
conditions, z [the context] [p. 2].

This process indicates how an individual determines whether a sign is present. Signs must signify something to someone, and they must be interpreted by someone. The signs with which the students communicate in the debriefing sessions have similar significations for all individuals at the particular time the debriefing occurs. The student's interpretation of these communicated signs will help him decide upon future behavior. Brissey and Hills (1969) designed this process of communication by the use of signs and symbols, as the process of metasemiosis, a higher level semiotic process. Metasemiosis enables a game participant to "profit from the mistakes and the wisdom of his fellows through the mediation of signs and symbols [p. 10]."

(Brissey)

Three major components of the Independence simulation have now been discussed. Action takes place through inquiry. Students make decisions and determine the consequences of those decisions. Through error-control, the debriefing discussion, students reflect on the outcomes using the mediation of signs and symbols, correcting any discrepancies and organizing what is learned for future action.

SUMMARY

This chapter has dealt extensively with two themes pertinent to the present investigation. In the first, the literature related to simulation has been reviewed, the historical development of games has been outlined, the research finds on game testing have been summarized and evaluated, and the advantages and disadvantages of game use in the secondary school classroom have been examined. In the second theme, the three components which comprised Independence have been discussed: the process of action, the process of inquiry and the process of error-control. Chapter 3 will deal with the manner in which these components were used in constructing the simulation, Independence.

CHAPTER 3

THE DEVELOPMENT OF THE INDEPENDENCE SIMULATION

Developing Independence was the major objective of this investigation. Since the designing of educational materials lies in the field of curriculum development, a model for curriculum development had to be adopted. The model chosen was T. Aoki's (1970) adaptation of Mauritz Johnson's (1968) model for translating curriculum into instruction. The present chapter will discuss both the model of curriculum development chosen and the manner in which it guided the construction of the Independence simulation. The chapter is divided into the following sections:

1. The Curriculum Development Model
2. The Construction of the Independence simulation.

THE CURRICULUM DEVELOPMENT MODEL

Development of simulations belongs somewhere in the field of curriculum development. The development of the game cannot, however, be classified as the development of curriculum. Games are designed to be used in conjunction with other materials within a unit of study. Games may be selected to foster the achievement of some of the objectives of a curriculum but they are merely a part of the instructional materials that the teacher uses. Varieties of

materials, including games, are deliberately selected for the purpose of achieving specified curricular objectives.

Mauritz Johnson's curriculum and instructional design model accommodates both curriculum and instruction and the relationship between the two. Johnson (1967) defined a curriculum as "a structured series of intended learning outcomes [p. 6]." Selected from the available culture, the cultural content, these intended learning outcomes (I.L.O.'s) are organized and structured according to explicit criteria. The curriculum which results from the curriculum development process has as its main purpose the guiding of instructional planning. The instructional planner determines the priority with which he will cover the intended learning outcomes of the curriculum and he selects and/or designs the materials that he intends to use. The designing of materials such as simulations is therefore the task of an instructional planner. To design worthwhile instruments, however, the instructional planner must be cognisant of the process of instruction. Instruction is essentially an interaction process in which the "fundamental interaction . . . is not among people, but between an individual and selected elements of his environment [p. 10]." (Johnson, 1968). These "selected elements" with which the learner interacts form a "display." The teacher determines what he intends students to learn, emphasizes the appropriate elements of the environment and displays those elements to the learners

through instructional materials. Essentially, that which the instructor selects to comprise his display, must convey a message to the learners, or, in Johnson's (1968) terms, the display must carry "meaning with which the instructee can interact [p. 10]." Figure 5 below shows the latter part of Aoki's (1970) adaptation of Johnson's curriculum and instructional design model.

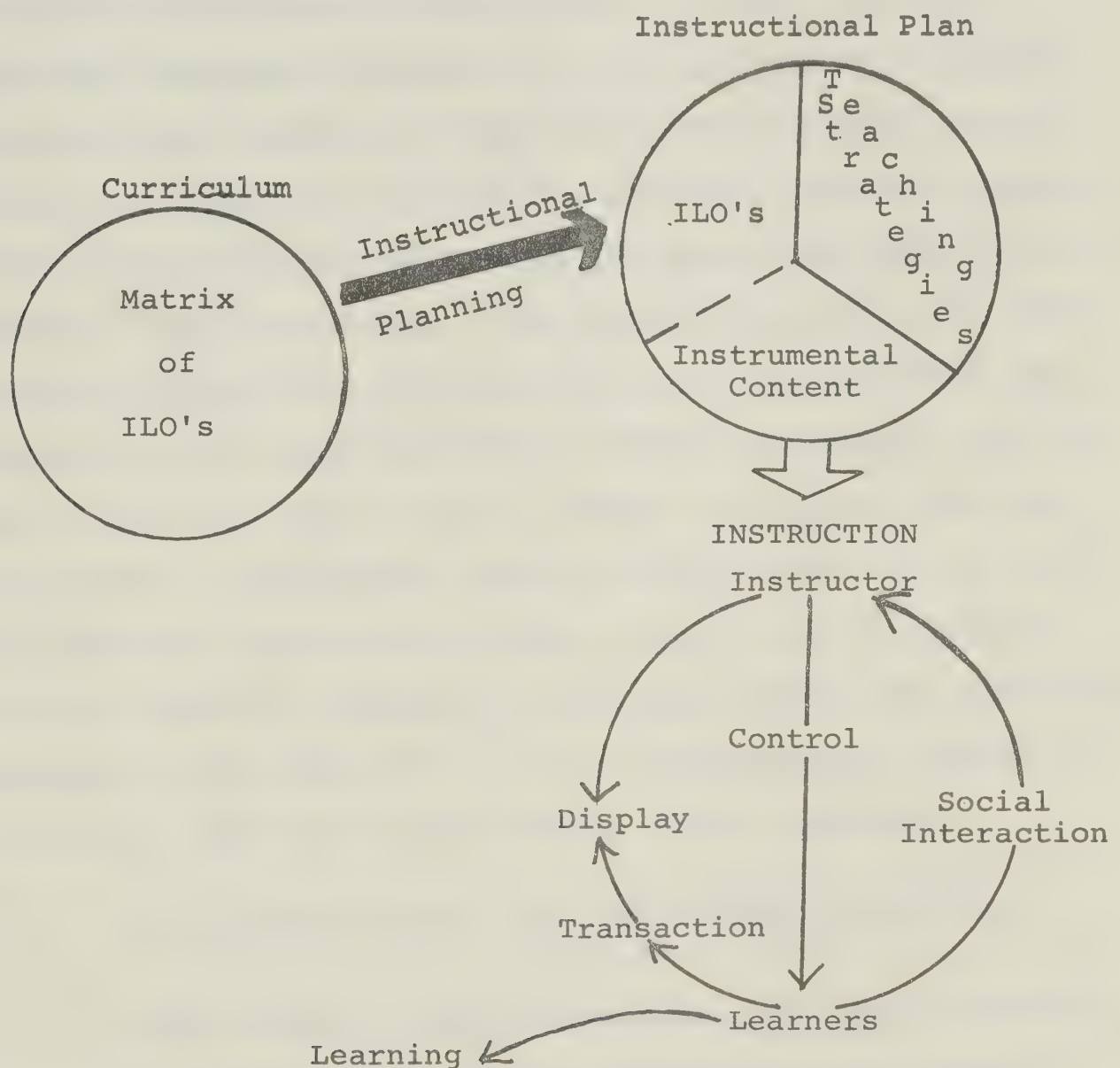


FIGURE 5

AOKI'S ADAPTATION OF M. JOHNSON'S CURRICULUM
AND INSTRUCTIONAL DESIGN MODEL

It can be seen from Figure 5 that the display is chosen from available "instrumental content." Simulation games are a type of instrumental content.

The construction of Independence was based on the development of instrumental content. Consideration was given to each of the following. First, the Independence simulation was designed to apply to the Alberta Social Studies Curriculum at the secondary school level. Second, selected intended learning outcomes from that curriculum were given priority and gaming was chosen as a useful type of instrumental content for achieving the intended learning outcomes. Third, both display and control functions were made integral parts of that simulation. The display materials were developed with the intent of promoting interaction between the student and the game materials, between the student and his peers and, to a small extent, between the student and the instructor. The control function was included in the form of rules and procedures in order that, as far as possible, control would be intrinsic to the game rather than externally applied by the instructor. To use Independence, however, an instructor must have basic control of his students.

THE CONSTRUCTION OF THE INDEPENDENCE SIMULATION

The intended learning outcomes which were selected from the Alberta Social Studies Curriculum were process oriented. They were designed to emphasize the three

fundamental processes--action, inquiry, and error-control--and the study of a particular historical concept was chosen as an appropriate topic. The historical concept, that of the unification of a nation-state, was selected because instrumental content on the subject appeared to be deficient. The unification of Nigeria in her independence movement proved a useful example for three reasons. First, the topic was suitable to the grade eight course which studies Afro-Asian societies and the investigator was experienced in teaching at the junior high school level. Second, use of junior high school classrooms for formative evaluation was possible in June whereas the high schools were hesitant to permit experimentation. For this reason, a topic suitable to the junior high school program was selected. Third, the events leading to the independence of Nigeria were fascinating, the material on the subject was vast, and the books and articles on Nigeria were in English.

After the topic had been selected, the first step in the construction of the game involved library research of the material on the Nigerian independence movement. Historical, political, economic and sociological data were read from primary as well as secondary sources. These included books, articles, and statements written at the time by the leaders of the Nigerian political and tribal groups. The ideas gleaned were used in the writing of the regional profiles and the role descriptions of Independence.

Books written by the British colonial leaders were studied for the same reasons. Invaluable to the study were the reports of the constitutional conferences held in 1953, 1954, 1957 and 1958. These reports gave ideas for the distribution of resources and for the opening events of the game. Also, they provided the structure and composition for the groups which were to be involved in the simulation. A discussion of the information which the investigator found of value is included in Appendix B.

After the appropriate information had been gathered, it was decided that, for the purposes for which Independence was being designed, the events of the game should be in fictional terms. Several reasons governed this decision. Both types of simulations-- games which replicate historical events and games which disguise the historical events on which they are based--are commercially available. Both types of simulations have their advantages in relation to the educational process. However, those which depend on historical facts tend to be restricted in their outcome. Students usually have some information about the historical period involved and often try to replicate the actual events. Their actions and decisions tend to be colored by what they know. The rationale of such games stresses that the outcome can be different from the historical outcome, but rarely does such a difference result. An example of such a game is Grand Strategy. Grand Strategy simulates the period of

European history preceding the first World War. To play, the students must have information about the period. The game superficially aims at preventing war, but one of its objectives is to show the inevitability of war under the circumstances which were involved. Realistically, one must give credence to the probability that the students will be influenced by their knowledge of the subject matter.

The aim of Independence, on the other hand, was the creation of an adaptive social system in which participants were to be forced to make decisions and to take action. No prior historical information was to be needed and decisions were to be made according to each participant's interpretation of the materials in his Participant's Manual. The possible outcomes that could occur in successive completions of the Independence simulation, therefore, could be as varied as the groups that were involved in playing the game. Indeed, the same group of individuals might produce one outcome at one time and a completely different one were they to replay the game. This wide range of outcomes is more likely to occur when the historical events are disguised than when they are replicated. The present investigator believed that it was only because of this multitude of possible outcomes that Independence would demonstrate the qualities of a true social system. One of the qualities that a system should exhibit is the principle of "multifinality." Buckley (1967), who stated this principle, maintains that:

similar initial conditions may lead to dissimilar end states. Thus two cultures developing in very similar ecological environments may end up with very different socio-cultural systems [p. 60].

So too, in the system that Independence creates, although each group that participates in the game faces the same initial conditions and works in a similar environment, dissimilar socio-cultural systems can result.

Another principle, that of "equifinality" applies equally well to Independence as it does to an open system. This principle indicates that a number of varied groups or individuals can reach the same end state despite the use of differing processes. The example that was used to illustrate this principle showed that several individuals could acquire the same state of adulthood in spite of using "any number of devious developmental routes [p. 60]." (Buckley, 1967). Similarly, in Independence, the five groups that begin the game have diverse interests and goals. However, at the end of the game all groups may decide to agree on one course of action.

To summarize by referring to Morris' modes of inquiry, the investigator was faced with two alternative courses of action. After careful evaluation of both alternatives, she selected the use of fictional events for the game content as being more closely related to her purpose. Once this decision had been made, she proceeded with the task of simplifying the actual historical events and translating them into fictional terms.

As can be determined from the description in Appendix B, clearly five groups were involved in the constitutional conferences of colonial Nigeria. These groups were Britain and the four states of Nigeria: the Western State, also called Yorubaland; the Eastern State, sometimes referred to as Iboland; the Northern State; and the Southern Cameroons. In 1961, the Southern Cameroons left Nigeria to join the Cameroons to the east. In 1963, the Mid-West State was created from part of the Northern State and part of Yorubaland. In the initial design of the simulation, Independence, the three major states were translated into states of LIBRA, but in place of the Southern Cameroons a group representing the mid-west minority was included. Consistent with the representations at the Nigerian Constitutional Conferences, each of the three states was given a delegation of six members. Each delegation contained representatives from both the majority or ruling political party and the minority or opposition party. Each delegate had one vote. This structure was maintained in Independence. The group which was to represent the mid-west minority that later secured statehood was given a delegation of six as well, but the delegates were non-voting. Originally, the British delegation, which was led by the Colonial Secretary, included a large number of advisers, but neither the Colonial Secretary nor his advisers voted on the motions presented to the Conferences. For the convenience of the normal class, NACRA

the group which was to represent Britain, was limited to six non-voting delegates. Several reasons reinforced the advantages of adopting the six member group. First, the game would be suitable for thirty players, the size of an average class. Second, with larger groups some roles would have to be made less important, and all students would not be equally involved. For simplicity it was decided to give all students ministerial positions and to call the leader of each group the PREMIER. The model for the grouping is shown below.

Groups Represented	Nigerian Counterpart	Ratio of Representation Majority:Minority	Voting Power
LUTTA	Northern State	5:1	6
FAIBLE	Yorubaland	5:1	6
HELIX	Iboland	4:2	6
NERVA	Mid-West	5:1	0
NACRA	Britain	6:0	0

FIGURE 6

MODEL FOR THE GROUPING IN THE
INDEPENDENCE SIMULATION

A brief comment is in order with respect to the names chosen for each group. All names had to differ from actual geographic entities and all had to be simple and easy to say. LIBRA came from the French libre but also from

astrology; Libra, the seventh house of the zodiac. The scales or balances which symbolize Libra were selected to represent the sign of the country, LIBRA. Both the French libre which means free and the astrological Libra which might symbolize justice seemed appropriate to the concept of independence. NACRA came from the French word for mother of pearl. It seemed appropriate to the concept of a mother country. The four state names were chosen only for their simplicity.

At this stage the translation of the simplified factual information on Nigeria into game materials was begun. While brevity was sought sufficient information had to be included to describe adequately the "crisis" with which participants in the game were to deal. In addition, sufficient "tension [p. 63]" (Buckley, 1967) between the participants and the simulated environment had to be created. A brief historical discussion of the relationship between LIBRA and NACRA was written with a description of the crisis which was to precipitate the conference the game creates. This initial scenario was to be common to all participants and so had to give general information about all the groups involved in the Independence Conference.

After the scenario had been written, the investigator proceeded to write regional profiles for each group. These profiles describe the region involved, the political philosophy that the group represents, and the aspirations that

that group has as it approaches the conference. The profiles were not included in the materials given to those participants representing opposition parties. Once the regional profile had been written for each group, the role descriptions of each of the six group members were written. The role description of the opposition member included the political philosophy of the party he represents and some indication of the reason that this group opposes the governing party of the state. The profile and role descriptions for each group indicated whether the members of the majority and the members of the minority political parties should sit together at the conference.

Rules for the simulation, the control mechanism for instrumental content, were then developed. The rules were designed to provide for the smooth operation of the simulation.

To this point, the following materials had been developed: the scenario, six regional profiles, thirty role descriptions, and a set of rules. These materials were designed to inform the participants of the conditions surrounding the convening of the Independence Conference. From this beginning, the components of the simulation, the process of action, the process of inquiry, and the process of error-control, were built into the game procedure. The investigator attempted to incorporate these components in the form of five activities. Activity number one was

designated "goal setting." Each participant was to list as a first task his individual goals, the objectives that he wanted to achieve by the end of the simulation. Then, working together, the group was required to set its goals for the simulation. Finally, each group was to estimate the goal of the other groups participating in the simulation. These goal-setting activities were designed to promote appraisive inquiry, but in order for goals to be set, students would have to be aware of existing conditions. The investigator felt that Activity #1 would promote adequately both designative and appraisive inquiry.

Once provision for the types of inquiry mentioned above had been completed, activity two, that of proposing strategies for solving the crisis, was developed. At this stage, each group was to propose a solution to the problem involved in the crisis and to state this solution in the form of a strategy. Once all the groups had proposed a strategy, the instructor would be required to duplicate all the strategies for each participant. These strategies would then be the possible solutions of the problem. In activity three, the groups were to analyze all of the strategies carefully and select the one which appeared most advantageous. These activities were to be the preliminary steps to prescriptive inquiry.

Prescriptive inquiry, or the action which was to facilitate the attainment of goals, began in activity four,

negotiation. During this activity, students were to negotiate with other groups in an attempt to win support for the strategy of their choice. As well, negotiation was designed to help each group improve its resources. Resources are in the form of money and bargaining units. Most groups lack or are deficient in one or both of these resources. After an initial ten minute bargaining session, groups return to their "territories" to analyze the proposals that others have made. After deciding which proposals are likely to be accepted, the groups involved sign a "contract." A vote is then taken and the strategy that receives a majority of the support decides the new situation. Each Premier then prepares a statement in reaction to the new situation. The statements of the various Premiers lead to the debriefing discussion of activity five. Activity five completed, the process begins again in a new round of decision-making.

In effect, this was the first draft of the game. The investigator felt that the three components--action, inquiry and error-control--had been incorporated into the simulation. Activity one involved appraisive and designative inquiry and the perceptual and manipulatory stages of the act. Activities two, three and four involved prescriptive inquiry in the consummatory stage of the act. And activity five involved the process of error-control through the debriefing exercises. At this point it was decided that some evaluation was necessary to determine whether the game

would actually exhibit these three components. Arrangements were made to use two grade eight classes at Vernon Barford Junior High School in Edmonton during the first two weeks of June, 1971. When the investigator entered the classroom, the following duplicated material comprised the game: thirty Participant's Manuals, play money, bargaining units in the form of cards, and forms entitled, "My Individual Goals," "Our Group Goals," "Our Estimation of Other Groups' Goals," "Analyzing Strategies," and "Contract." During the initial playing of the game, the first stage of formative evaluation, both the cooperating classroom teacher and the investigator kept a commentary on what happened. At the end of seven fifty-minute periods of classroom time, the participating students were asked to complete a questionnaire. The findings of this formative evaluation will be found in Chapter 4. Suffice it to say that extensive revision proved necessary.

On the basis of the formative evaluation, the investigator proceeded to revise the game. Roles were rewritten. All forms except the "Contract" were eliminated and a form entitled "For My Information" was substituted. In addition the strength of the group representing Nerva was substantially increased. NERVA itself was assigned statehood comparable in strength to that of the Southern Cameroons of pre-independent Nigeria. Finally, all of the activity sheets were omitted and replaced by a short description of the simulation procedure.

The second stage of formative evaluation was undertaken at this point. Arrangements were made to use the second draft of the game at Stratford Junior High School, Edmonton, during the week of June 18 through June 25, 1971. The game was played, the cooperating classroom teacher and the investigator made commentaries, and the students completed a questionnaire.

Before the second revision of the game was completed, the investigator used the same materials with the students registered in the 1971 summer session section of Ed. C.I. 468 at the University of Alberta. The observations gleaned from this experience and from the comments of the students involved were invaluable in preparing the final revision of the game. Once this revision was complete, the game was retyped and multilithed for future use and experimentation.

SUMMARY

Initially, this chapter dealt with the curriculum and instructional design model which was employed in the construction of the Independence simulation. The development of the game came under the category of instructional planning, specifically the activity of designing instrumental content. The display function and the control function of instructional materials were considered important to the construction of the game.

The major part of Chapter 3 dealt with the procedure

used in the construction of the simulation. In summary, the following steps were taken in designing Independence. First, the topic was selected. Second, library research yielded information covering the historical events chosen, those of the independence movement in Nigeria. Third, the actual events were simplified and a model for the game was outlined. This model established the groups, the group size, and the resources with which each group was to work. Fourth, the "real" groups were translated into fictional terms. Fifth, the descriptive materials of the game were written, including a scenario introducing the central problem, a set of rules for the game, a number of regional profiles and the appropriate role descriptions. Five activity sheets detailed the procedure to be followed in the game. Sixth, the first draft of the game was compiled and phase one of formative evaluation was completed. Seventh, extensive revision was undertaken. Eighth, the game was played in the second stage of formative evaluation. Ninth, the game was revised, the teacher's manual written and the game and manual multilithed for future testing.

CHAPTER 4

FORMATIVE EVALUATION

The present investigation was not designed to be an empirical evaluation of a simulation game. Instead, the investigation aimed at developing a particular simulation game according to the adaptation of Johnson's curriculum and instructional design model by Aoki (1970). The investigator attempted to incorporate the process of action, the process of inquiry and the process of error-control as the three fundamental components of the Independence simulation. Development of any instrumental content, however, necessitates that some complementary process of evaluation occur at stages in that development. Indeed, such formative evaluation is so vital to the development of curricular materials that it equals if not surpasses the importance of empirical evaluation of the finished product. Because of the insight that formative evaluation provided in this study, a discussion of the findings of that evaluation have been given appropriate emphasis in this separate chapter which deals with the concept of formative evaluation, the formative evaluation that occurred, and the insights that were gained from that evaluation. The following major headings will appear:

1. Formative Evaluation: The Concept

2. Independence: Phase I of Formative Evaluation.
3. Independence: Phase II of Formative Evaluation.
4. Summary.

FORMATIVE EVALUATION: THE CONCEPT

Formative evaluation as the term implies, should occur during the formation or development of curricular materials. Michael Scriven (1967) has explained the need for formative evaluation. The following quotation is part of that explanation:

. . . any curriculum builder is almost automatically engaged in formative evaluation . . . As he proceeds to construct the new material, he is constantly evaluating his own material as better than that which is already current. Unless entirely ignorant of one's shortcomings as a judge of one's own work, he is presumably engaged in field-testing the work while it is being developed, and in doing so he gets feedback on the basis of which he again produces revisions; this of course is formative evaluation [p. 43].

The goal of formative evaluation is not to compare one technique of teaching a concept with another. Rather, the goal of formative evaluation is to discover the "deficiencies and the successes in the immediate versions [p. 51]" of the new materials.

It was for this purpose that formative evaluation was undertaken during the development of the simulation, Independence, even though that evaluation was carried out within limits. Although the intended learning outcomes of the game had been specified and the intent of formative

evaluation was to determine whether the game could aid in the achievement of those I.L.O.'s, no instruments which would indicate attainment of the objectives had been constructed. Indeed, at the time that formative evaluation occurred, it was difficult to suggest even the type of instruments that should be developed for this purpose. The formative evaluation was therefore subjective, non-empirical. As such the worth of the findings of the evaluation is somewhat limited. What was observed was interpreted by both the investigator and the cooperating classroom teachers. The observations made are simply "intuitions" on the part of the investigator not empirical facts. These observations, however, proved valuable and the possibility of translating some of them into questions for further research will be raised in Chapter five.

Formative evaluation occurred twice during the construction of Independence. Two grade eight classes were used in each case. The cooperating classroom teachers and the investigator each kept a log of events, jotting down comments, suggestions or criticisms. At the end of each complete playing of the game, an informal questionnaire (Appendix C) was completed by the students. Revisions of the game were guided by the comments made by the investigator, the cooperating classroom teachers and the students. To keep the discussion chronological, the formative evaluation will be discussed in its two phases.

INDEPENDENCE: PHASE I OF FORMATIVE EVALUATION

To review from the previous chapter, the first phase of formative evaluation occurred at Vernon Barford Junior High School, Edmonton, May 31 through June 11, 1971. Two grade eight classes of thirty students were used. Each class was divided into five groups of six members by the cooperating teacher who also indicated a leader for each group. For leaders, the teacher was asked to select individuals who had potential in terms of both organizational ability and personal qualities. The subsequent choice of members for each group was based on the teacher's familiarity with the students. The classes were divided so as to be as heterogeneous as possible with respect to sex and ability. Special effort was made to separate students who had exhibited behavioral or discipline problems throughout the school term.

For simplification and differentiation, the two classes will be referred to as 8³ and 8⁶ during the remainder of this section. It is necessary to distinguish the two classes because they varied considerably and each exemplified different characteristics. Hence, the occurrences in each class differed and the observations, therefore, must refer specifically to the class in question.

Although Vernon Barford Junior High School attempts an heterogeneous grouping of students, circumstances cause

this grouping to be less than accurate. Therefore, the two classes exhibited different characteristics. The majority of students in 8³ had maintained above average achievement according to the teacher's evaluation throughout the school year. Approximately half of the students were achieving at a percentage level of seventy or higher. Five obvious leaders were evident in the class and these were appointed Premiers. There were few weak students in the class and discipline problems had been minor throughout the year.

In contrast, 8⁶ generally appeared inferior. This class was composed of four girls and twenty-six boys as opposed to a 14:16 ratio in 8³. The class was the lowest achievement-motivated of the six grade eight classes in the school. Over half of the students were achieving at below the sixty percent level and at times during the school term the teacher had been forced to divide the class in two, giving the less able students simplified material. In the same class, was the top student in grade eight as well as four students who achieved at or above the seventy percent level. Despite the presence of five academically capable students, only four strong leaders were evident in the 8⁶ class. All five of these students were appointed Premiers but the weakest of them subsequently proved unable to direct his group. In addition, although the groups were approximately equal in strength, many behavioral problems existed and one group evidenced the presence of four known discipline

problems. Unfortunately, this group was led by the weakest Premier.

The timetable, allotted four, fifty-minute social studies periods per week to each class. The distribution of the classes throughout the week was not even. Both 8³ and 8⁶ took social studies on three days per week. Grade 8³ had social studies twice on Monday, once on Wednesday and once on Friday. Grade 8⁶ had social studies once on Monday, twice on Tuesday and once on Thursday. This distribution of class time proved to be detrimental to continuity and more time was required to complete the game than had been anticipated.

The first period of the game was similar for both classes. A brief, ten-minute introduction of the inquiry process was given and ten minutes were devoted to comparing a simulation game with an athletic game. In 8⁶, the class was then divided into groups. The Premier of each group had the responsibility of assigning the remaining roles to the group members. The class was then instructed to read the Participant's Manual during the remainder of the period. Problems immediately arose. It was evident that some explanation of the game and a description of the crisis should have occurred before the reading was assigned. In 8³, therefore, detailed explanation of the crisis was given. A transparency showing LIBRA was used to illustrate the discussion. The students were then grouped and asked to read the first few pages of the Participant's Manual. At this point

the class was called to attention, the crisis was re-explained and the students' queries were answered. The students then read the remainder of the booklet. Two periods were required for the 8^3 class to complete reading the manual and the students were instructed to take their manuals home and as homework to write out their individual goals.

To correct the misunderstanding which 8^6 had experienced, the first part of the second period was spent reviewing the crisis with the students and explaining the different parts of the Participant's Manual. Students then proceeded to reread the manual. The third period and half of the fourth were occupied in the goal setting activities. Difficulty was experienced in deciding upon goals and students were unable to work within the allotted time for this activity. At the end of the third period both classes were at the same stage, despite the homework assigned to 8^3 . At this point both classes were one period behind the anticipated schedule. An additional difficulty was experienced at this time. The 8^6 class lost its Thursday period and the 8^3 class lost its Friday period. This meant a break in the game of five days with 8^6 and four days with 8^3 . In this time students forgot some of what had occurred and interest lagged. To speed play, the investigator decided to delete Activity #2, that of proposing strategies for solving the crisis, substituting a prepared sheet of six strategies.

The fourth period occurred on the Monday of the

second week. Ten minutes were spent in reorienting the students to the game, five minutes were spent in reviewing goals, and twenty minutes were spent in Activity #3, analyzing strategies. During the remainder of the period, the Premiers wrote and read their opening statements to the conference. After four completed periods, the game was just beginning.

Period five began the negotiation activity. Interest revived as students selected a strategy and began organizing for the bargaining session. In the ten minutes allotted for this preparation, the group decided on which resources it wanted to improve and whom it would approach for these resources. No restrictions were placed on the number of groups that could be approached. Bargaining was allotted ten minutes, but fifteen minutes elapsed before students were resettled into their groups. Ten minutes were spent analyzing the proposed bargains. Students indicated that more bargaining time was needed and the rest of the period was spent in further negotiation. Much of the excess time that was required for this activity was attributed to lack of clear instructions on the part of the investigator.

An interesting incident happened with the 8⁶ group during this fifth period. Most of the game was played in a carpeted classroom but for this period 8⁶ was asked to move to an uncarpeted area in the mathematics area of the school. The noise level rose noticeably and reached such a degree

that consideration was given to ending the game.

Period six began with the completion of agreements through the signing of contracts. The signed contracts were collected by the investigator and resources were exchanged between contracting parties. A vote was counted and the classes were informed of the new situation. The students then spent ten minutes preparing and reading a statement in reaction to the new situation. Because one full period for debriefing was required, the investigator decided to terminate the game. The last ten minutes of the sixth period saw the initiation of the debriefing which was concluded in the seventh period.

In all, seven periods were spent with each class at Vernon Barford Junior High School. During that time, a total of three hundred fifty minutes, only one complete decision-making session had occurred. An anticipated four such sessions were needed to complete the game. The simulation obviously required significant revision. The observations made by the cooperating teacher, the students and the investigator guided the revision. These observation will be listed below.

INDEPENDENCE: Observations from Phase I of Formative Evaluation

1. Both cooperating teacher and the investigator felt that Independence would have to be simplified for grade eight students. Grade 8³ had adapted better and benefitted more

from the game than had 8⁶. In contrast, a majority of the students in both classes indicated finding the game interesting and most said that they felt it was "just right" for students in grade eight. All but one student said they would play the game "better" a second time.

2. It was evident that if interest was to be maintained, less time should be spent in activities such as reading and goal setting and analyzing strategies. It is important for the active part of a game to begin quickly after the game starts. Both the cooperating teacher and the investigator agreed that the volume of the materials given to the participants had to be reduced. In contrast, students' answers on the questionnaire indicated that most felt they had had "just enough" information or that they had needed more.

3. Debriefing illustrated and reinforced the investigator's estimation that the students were not using the inquiry model in any discernable way. The process in which they were engaged appeared to be one of "muddling through." The only indication that the inquiry process had influenced the participants was the response that students gave when asked about the way in which they had played the game. Most students evaluated the quality of their game play according to the extent to which they had achieved their goals. If a student had not achieved his goal he indicated that he had played the game poorly.

4. The playing of the game illustrated the need for

clear, concise instructions. Often, throughout the game, the investigator's instructions confused more than they clarified.

5. The goal-setting activity indicated that establishing goals was one of the most frustrating and difficult tasks. More information was needed for this activity.

6. Grouping proved to be of significance to the ease with which the game is played. Generally, it appeared the strength of the group leader influenced the success of the group in achieving its goals. The weakest group in 8⁶ spent the entire game trying to acquire enough resources, 1,000 bargaining units and \$1,000,000, so that it could 'withdraw' from the activities. In addition, comments by the Ministers indicated that most felt that the Premier had done all the work and that their roles were ineffective or unimportant.

7. The experience with 8⁶ in the non-carpeted area raised the question of the noise factor. Credence had to be given to the possibility that use of the simulation might be restricted because of the school's facilities.

8. Too many breaks in timetable caused the game to lose momentum. Long breaks or uneven weekly distribution of classes can erase the advantages provided by longer class periods.

9. Most students said that they found Independence interesting and that they enjoyed playing the game. Simultaneously, however, some reported that they liked the activity

because it differed from what they had done before. The Hawthorne effect apparently accounted for much of the interest.

10. Absenteeism often caused problems. Pupils who had to spend time 'catching up' were of no value to the group. Similarly, groups experienced difficulty when one of its members was away.

All the participants involved in this trial run of Independence concluded that the simulation had potential. All agreed, also, that revisions were necessary for the game to be of value. Some of the indications for revision were that:

1. Simplification of the descriptive materials was needed.

2. Less material should be distributed to each participant.

3. The forms used were cumbersome and confused the students and most could be eliminated.

4. The inquiry model needed further study and needed more thorough explanation to the students.

5. Goals should be made easier to set. The setting of individual goals and estimating of other groups' goals was considered unnecessary.

6. The resources and their importance had to be clarified.

7. The pages of the Participant's Manual should be

numbered for easy reference.

INDEPENDENCE: Revision--Phase I

The revisions began during the playing of the game at Vernon Barford and continued for one week after the completion of the game. The description of the crisis was simplified and clarified but not reduced in length. Roles and regional profiles were substantially rewritten, reduced in length, and simplified. Goals were made more discernible by stating them as "want" statements and underlining want. Role functions were distributed more equally with each minister assigned a specific task. The activity sheets were eliminated. A description entitled "The Simulation Procedure" replaced these sheets and clarified resources. All the forms except the contract were discarded. Replacing the discarded forms was a new one entitled "For My Information" which required the use of both designative and appraisive inquiry to complete. This was to become a handy reference sheet for the participants during phases of prescriptive inquiry.

At this time, a major shift occurred in the status of the weakest group, Nerva. This group represented a minority and its weakness had created problems in 8⁶. To make the group more effective, Nerva was given the status of a state similar to the Southern Cameroons of pre-independent Nigeria. The regional profile and the role descriptions were

rewritten, the group was given two votes and the resources were improved.

The game was then retyped, collated and compiled for its second trial. Phase II of formative evaluation occurred at Stratford Junior High School, June 18 through June 25, 1971.

INDEPENDENCE: PHASE II OF FORMATIVE EVALUATION

In contrast to those at Vernon Barford, the classes at Stratford Junior High contained a more uniform distribution of ability levels. The two classes, 8^E and 8^F, appeared to be of comparable quality, with 8^E slightly weaker. The teacher established the groups in the same way as had been done at Vernon Barford. Some problems occurred because of the nearness to the end of term. Some students were leaving school early for vacation and others were truant. Each group varied slightly throughout the week but approximately twenty-four roles were represented.

Also because of the lateness of the school term, one week only was available for the second phase of evaluation. During that week each class was seen for five forty-minute periods. In order that each of these periods would be available for the playing of the game, a period prior to the week of June 21 was spent in the introduction of the inquiry model. Diagrams were distributed to the students showing the inquiry process and an example was detailed. The

concept of a simulation was introduced and Independence was described and its purpose explained.

The first period of game play began Tuesday, June 22. The crisis was described, the groups were formed, the students read about the crisis, the crisis was re-explained and the students' questions were answered. Students then read the rules, their regional profiles and their role descriptions. The "Simulation Procedure" was read aloud with the students after which they completed the sheet entitled "For My Information." Unlike the previous experience, these activities were completed in one period. By the end of the second period the goals had been established the opening statements had been prepared and read, the strategies had been discussed and the best strategy had been chosen by each group. The third period enabled the completion of one negotiation session including voting. The fourth period saw a second round of negotiation completed.

The final period was spent in debriefing and completing the questionnaire. In all, five forty-minute periods proved sufficient for the completion of two rounds of decision-making. It was estimated that the game could have continued for another week.

INDEPENDENCE: Observations from Phase II of Formative Evaluation

1. This second set of grade eight students had handled the game more easily than had the first. The simplifications

appeared sufficient.

2. Interest was maintained by the pace of activity in the game and by the speed with which the students achieved the prescriptive phases of the game.

3. Some confusion existed after the first round of decision-making and a practice session at this time would have been advantageous.

4. Students reported having used the inquiry model but felt that more time should have been spent discussing the model. Some students indicated that an example of the process in action should have come from the game. The use of a practice session might have clarified this.

5. Grouping proved to be important again. One of the groups which represented Nerva, the weakest state, proved to be the most influential group because of the personalities of the group members.

6. Although class size varied, the purpose of game was not defeated. Playing dual roles and/or deleting roles adequately solved any problems created by the reduced class size.

7. Students expressed enthusiasm for the game in two ways. First, they responded positively on the questionnaire. Second, the cooperating teacher discovered that more students from both 8^E and 8^F were attending social studies classes than were attending the courses immediately before or after their social studies class.

8. The simulation occurred in an uncarpeted area.

In contrast to the experience at Vernon Barford, the noise level was comfortable. The smaller room size was suggested as the reason for the difference.

Before Independence was revised again, the investigator had an opportunity to use the game with the 1971 summer session section of Ed. C.I. 468 at the University of Alberta. Two rounds of decision-making were completed with the twenty-four students in the course. The following observations were made. First, the adults read far more into the game materials than had been intended. Although this usually led to interesting and involved conversation, a few students identified the "real" historical events and their behavior was correspondingly biased. Second, with a vocal and interested group of students, debriefing can occur at many and varied times during the playing of the game. Third, the adults had more difficulty respecting time limits than the grade eight students had had. These older students tended to discuss, analyze and evaluate more than the youngsters had. That the game should be used differently with different interest and age groups, was evident. Equally evident was the indication that the game could be used for a variety of purposes and in a variety of contexts. Fourth, some of the students in the Ed. C.I. 468 class were disturbed that Independence did not teach factual information. In this instance, the individuals involved were reacting as

traditional educators. The intended learning outcomes emphasized by Independence and those emphasized by these people are different. These individuals would be wise to choose other instrumental content for their purposes.

From the two experiences in this second phase of formative evaluation came ideas for the second revision of the simulation.

1. A practice session had to be included in the game procedure.

2. The choice of whether opposition and governing party members should sit together had to be left to the affected parties to decide. (The previous drafts of the game specified what each should do).

3. A means of identifying groups had to be included.

4. Time limits had to be made more flexible.

5. Suggestions for using Independence in a variety of situations had to be developed.

INDEPENDENCE: Revision--Phase II

The final revision of the game began at this time. The teacher's manual, as seen in Appendix A, contains the revised materials. Grammatical errors, cumbersome wording and spelling faults were corrected. The map was redrawn and reversed to disguise its resemblance to Nigeria. The roles were changed to allow for opposition members to decide where they should sit and separate regional profiles were written for the opposition members in each region. This was

done for the ease of pagination. Colors were chosen for each group and name tags were designed for identifying individuals. Provision was made for the use of Independence with as many as thirty-four students through the creation of an alternate group. Finally, the teacher's manual was written.

SUMMARY

This chapter has dealt with the formative evaluation that occurred during the development of the Independence simulation. In it a discussion of the concept of formative evaluation was given and the two phases of formative evaluation were described. Of most importance were the observations which resulted from each phase of evaluation.

Any designer of instrumental content who tests his own product plays with danger in doing so. Bias is inherent in such an activity. Nonetheless, at this stage of evaluation, the intuitions which accrued from the initial operations of the game proved interesting and valuable to the revision of the game. Of course, Independence needs to be subjected to extensive empirical testing, but such empirical, summative evaluation was not the purpose of this investigation. However, some of the observations gathered from the formative evaluation will be translated into possible questions for research in Chapter 5. The investigator hopes to participate in some stages of the

summative evaluation of Independence; however, Scriven's caution that "formative evaluators should ideally exclude themselves from the role of judge in summative evaluation [p. 45]" will be heeded.

CHAPTER 5

SUMMARY AND RECOMMENDATIONS

SUMMARY

The present investigation has been concerned with the development of a simulation game entitled Independence and with the formative evaluation that complemented the development. Independence was designed to achieve some of the objectives of the new Alberta Social Studies Curriculum at the secondary school level. The intended learning outcomes of the simulation emphasize the development of a method of inquiry. High priority is placed on this concept in the new curriculum as well.

Reviewing the literature relating to simulation (Chapter 2) provided insight into the stage of sophistication that simulation and gaming has achieved. Simulations, in the form of war games and training devices, were developed early. Although scholars like Mead (1934) early saw the value of games as aids in the education of children, gaming did not secure a firm place in the field of education until the 1950's. Even then, it was adult education institutions that initiated and used gaming most. The use of simulations with children was delayed into the 1960's. Since then, considerable research has been done on the games developed. Most of the research indicates a high level of interest on the part of participants. Games were found to give students

experience in decision-making and vicarious experience in social processes generated skills which would prove useful to the child in later stages of living. The need for caution with respect to the use of gaming in education was established through research which points to the common conclusion: the results of testing are viable only for the games tested and only in the environment in which the research occurred.

The components of any simulation were then discussed. The fundamental components which should be constructed into a game are the processes of action, inquiry and error-control. The act follows three stages, those of perception, manipulation and consummation. These three stages are characterized by want, effort and satisfaction, respectively. Action, however, to be effective, should be guided by a process of inquiry. Morris (1964) outlined a process of inquiry which complements the three stages of action. Designative inquiry, or inquiry into problems of what is, will be or was; appraisive inquiry, or inquiry into problems of preference; and prescriptive inquiry or inquiry into problems of what to do, guide the solution of problems.

In the simulation which was developed, highest priority was given to prescriptive inquiry. The game creates a problem. To solve that problem, participants must analyze the situation, set goals, analyze different strategies for solving the problem and select one course of action. Once

action has been taken, the third component of the simulation, the process of error-control, begins. During this phase of the game, participants analyze the results of their action. They are required to compare the results with what was intended. If any discrepancy exists, they must discover some way to establish better coordination between their objectives and their actions.

Chapter three of the thesis dealt with the development of the Independence simulation. Once the topic of independence had been selected and the information gathered, the game was developed. Scenarios, role descriptions and regional profiles were written. Rules, the simulation procedure and the strategies for solving the problem were then produced.

Once the game had been compiled, two phases of formative evaluation occurred. Revisions followed both of these sessions. The observations made while the game was in progress indicated several areas in which summative evaluation might concentrate. Some of the questions for which research could produce answers are:

1. At what levels of the secondary school social studies curriculum is Independence suitable?
2. In what different ways can Independence be used? In what ways should it be used?
3. What instruments can be designed to test for the three components: the process of action, inquiry and error-control?

4. What effect does the amount of information that a participant receives have on his play in the game?

5. What effect does the clarity of instructions have on the participants in the game?

6. What effect does the grouping of the participants have on the functioning of the game? What effect does the membership of a particular individual have on the group?

7. What effect do different procedures have on the functioning of the game? For example, what is the effect of playing the game for long periods on consecutive days versus playing the game for short periods over a longer period of time?

8. How can student learning from the game experience be assessed?

9. What effect does a practice session have on increasing the quality of game play?

10. What effect does environment have on the play of the game?

From the summary above it is evident that several recommendations can arise from this study. In the next section the most important of these recommendations will be discussed.

RECOMMENDATIONS

In developing Independence a valuable learning experience occurred. To the developer of a simulation it is

recommended that:

1. A theoretical basis for the simulation be selected.
2. A curriculum development model be used to guide the design.
3. Formative evaluation be an integral and complementary process to the development of the materials.

From the findings of the formative evaluation, it is evident that extensive summative evaluation of the Independence simulation should now occur. Below are a list of some of the areas where further evaluation of the game should be made. Where applicable, suggestions for an approach to such evaluation accompany the discussion.

A. Independence should be used at a variety of grade levels and ability levels in the Alberta social studies classes.

B. Independence should be altered and tested in a variety of editions. Some of the questions which might guide the alterations are: What is the effect of adding more groups? What is the effect of increasing or decreasing group size? What is the effect of varying the amount of feedback information?

C. Ways of testing the I.L.O.'s of the game should be designed. Video taping of each participating group might prove profitable. Designing paper and pencil tests might be possible.

D. Independence should be tested by use of a variety of methods of grouping. Heterogeneous versus homogeneous grouping of ability should be examined. Varying the type of leader should be tested. The functioning of a teacher-chosen group as opposed to a student-chosen group should be compared.

E. Independence should be used with the same group at several different times. The play of each individual could be plotted to determine individual variation on consecutive game plays. Does the performance improve? Is better use made of the inquiry process? Do the strategies change?

These, then, are some recommended areas where research on Independence might begin. Independence would suffer injustice if it were to be tested by comparing it with some "traditional" method of instruction. The value of the simulation must lie within the game and evaluation has as its task the estimation of that intrinsic value. The importance of the study of Independence is not in the initial conditions that the game creates nor in the end products that the game fosters. As in a system, it is the interactions which occur during the course of game play that must be studied. In the following passage Buckley (1967) indicated the course that research on systems must take. It is equally applicable to Independence.

The socio-cultural pattern is generated by the rules . . . and by the interactions among normatively and purposively oriented individuals and subgroups in an ecological setting. Full understanding and explanation can appeal, alone, neither to early history nor

common human characteristics (initial conditions), nor to final structure and functions. Attention must finally be paid to the interactions generated by the rules, seen as only limiting frameworks of action; to the new information, meanings and revised rules generated by the interactions; and to the more or less temporary social products that represent the current state or structure of the ongoing process [p. 62].

The development of Independence has convinced the investigator that simulation can make an important contribution to learning. After observing Independence in operation she believes that it may prove to be a worthwhile addition to the instrumental content of the new Alberta Social Studies Curriculum. Further, the investigator is convinced that the teacher who takes the time necessary to prepare for the simulation, Independence, will find the activities which occur interesting and rewarding to observe. The use of simulations such as Independence can add a new dimension to instruction by helping to improve the type of interaction which occurs. Ultimately the usefulness of the technique will depend on the instructor's ability to implement it effectively. The simulation should be used to supplement and complement, but not replace, other instructional methods. The teacher who is willing to employ the Independence simulation will find it a valuable and exciting technique.

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APPENDIX A
GAME MASTER'S HANDBOOK

INDEPENDENCE

A Simulation of a Colony Striving for Independence

GAME MASTER'S HANDBOOK

A Teacher's Guide

Developed by Jane Sterk as part of a
Master of Education Thesis at the
University of Alberta
Fall, 1971.

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INDEPENDENCE

INDEPENDENCE

GAME MASTER'S HANDBOOK

INDEPENDENCE is a simulation game designed to give participants experience in decision making. The game simulates the problems facing a colony which is trying to gain independence. Two nations, NACRA, the mother country, and LIBRA, the colony, are involved. In the game students assume the roles of decision makers and try to resolve the differences between the two countries.

This handbook contains a description of simulation games, a discussion of the rationale used in developing INDEPENDENCE, and an explanation of when INDEPENDENCE should be used. In addition, there is a section entitled "How to Use INDEPENDENCE." This section describes in detail the day-to-day activities which will occur in one run of the game. The last half of the Handbook contains all the material that the students have in their Participant's Manuals. The first thirteen pages are common to all participants. Page fourteen describes the region that the student represents and page fifteen outlines the student's role. There should be ten different page 14's and thirty-four different page 15's. Page 16 is common to all students.

WHAT IS A SIMULATION?

A simulation or simulation game is essentially an educational tool. It is designed to achieve certain, specified objectives or intended learning outcomes. Games should be used in conjunction with 'normal' teaching procedures. They can be used as an introduction or a culmination to a unit of study, or during the progress of the study.

A simulation game mirrors a social process and the participants assume the roles of people involved in that process. Participants working individually or in groups make decisions on the basis of the information provided in the game materials.

Educational gaming in secondary school classrooms is a fairly recent phenomenon. However, considerable research has been done on games and both advantages and disadvantages concerning their use have been found. For the convenience of the reader these will be listed in separate sections.

Advantages

1. Research has shown that games are effective motivational devices. Students enjoy participating and the pressure of decision-making encourages continuous, sustained interest.

2. Students learn from their mistakes. Mistakes, however, can be made without the censure that would result in the 'real' situation.

3. A simulation game brings the future into the present. The game gives the student vicarious experience in social processes that he may meet later in life.

4. Most of the discipline and control is intrinsic to the game. The students must obey the rules if the game is to continue.

5. Games allow the students opportunities to discover and verbalize their feelings and to gain confidence in their ability to make rational decisions.

6. By role playing, the students develop tolerance for and knowledge of other people.

7. Games give children experience in working with others. Children experience cooperation toward goal achievement, competition with other groups, conflict and its resolution, and power and its impact on group behavior.

8. Games can teach both concepts and skills. The communication skills of persuasive argument, public speaking, and rational discussion are encouraged and problem solving skills are developed.

Disadvantages

1. The most serious weakness of simulation games is inconsistency of quality. Few simulations foster all the advantages mentioned above and few have been subjected to hard empirical evaluation.

2. Games can be expensive in both time and money. Teachers and students must spend considerable time in preparing for and organizing the simulation. In addition, the game will usually require more class time to introduce a concept than if it were taught in a more conventional manner.

3. The operation of the game tends to be disruptive of the routine of the school. Changes in timetable and rearrangements of classroom furniture and equipment may have to be made. The students participating in the game tend to be excited and may be difficult to settle into the patterns followed in other classrooms.

4. The learning which results from games is difficult to measure.

THE RATIONALE

INDEPENDENCE was designed for the Alberta Social Studies Curriculum (1971). This course of study suggests too few teaching materials. It is believed that games can provide innovative and interesting activities for both students and teachers.

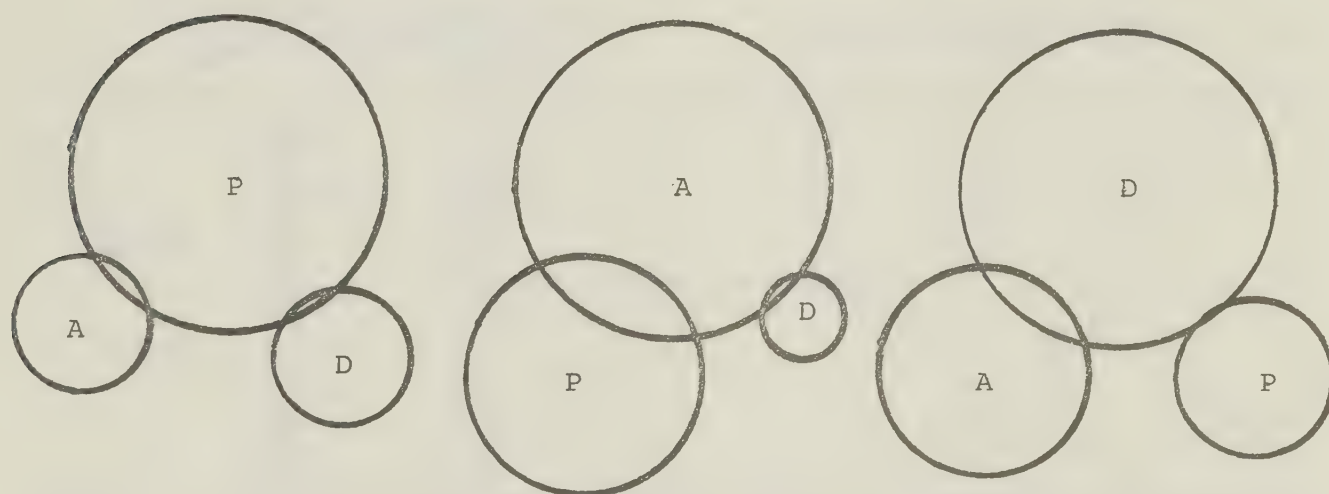
The subject of study of INDEPENDENCE is of wide, general interest and INDEPENDENCE is applicable to most of the social studies curricula in the Canadian provinces.

INDEPENDENCE tries to incorporate the advantages of simulation games as listed previously and to minimize the disadvantages.

Although INDEPENDENCE was developed to foster several intended learning outcomes (p.10), the teacher who uses INDEPENDENCE should adapt the game to suit the needs of the specific teaching situation.

THE THEORETICAL BASIS OF INDEPENDENCE

INDEPENDENCE was designed to provide its participants with a method of inquiry which they might employ in solving problems. This method of inquiry was postulated by Charles W. Morris (1964) in *Signification and Significance*. Inquiry is defined as a "reflective process involving signs and directed to solving a problem (p.26)." Inquiry which deals with problems of what has happened, is happening or will happen is said to be *designative inquiry*. Inquiry which deals with problems of what to do is said to be *prescriptive inquiry*. And inquiry into problems of what to accord preferential behavior is *appraisive inquiry*. Inquiry can be predominantly DESIGNATIVE (D) PRESCRIPTIVE (P) or APPRAISIVE (A) but usually each phase of inquiry is involved to a certain degree. For example: the following diagrams might illustrate three different inquiries:



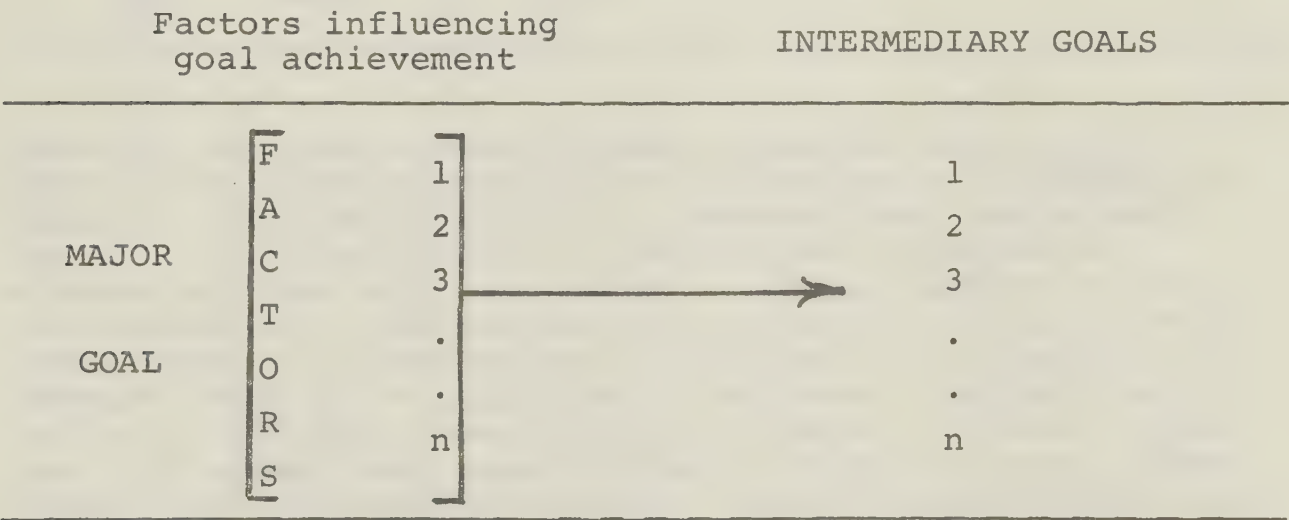
As can be extrapolated from these diagrams, each type of inquiry may be present, but the percentage of time or energy spent in each might vary substantially.

Although each type of inquiry is important, action takes place after prescriptive inquiry. Prescriptive inquiry is directed toward reaching some appraisive goal and the inquirer must select a course of action which he thinks will approximate his goal. The inquirer usually has two or more alternative courses of action from which to select.

Participants in the INDEPENDENCE simulation use this method of inquiry in a slightly more structured form. When a person establishes a goal (appraisive inquiry) he also proposes a problem. Before he can achieve that goal he must select a course of action (prescriptive inquiry). This course of action must be consistent with the situation as he observes it to be or as he expects it to be in the future (designative inquiry). This process can be clarified with the use of diagrams.

THEORETICAL MODEL

A MAJOR GOAL (what is wanted) = A PROBLEM



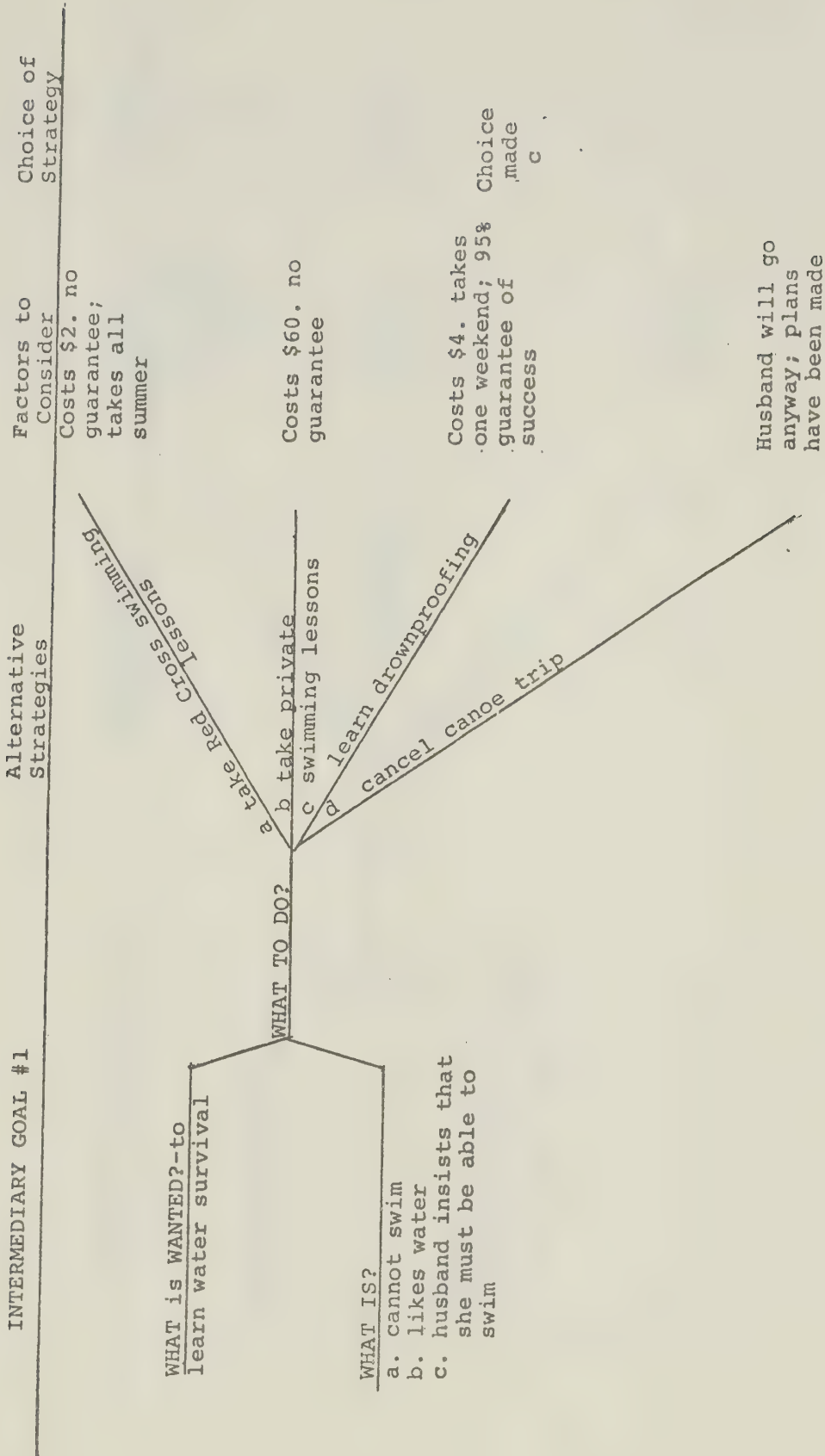
From this diagram it can be seen that the setting of a MAJOR GOAL poses a problem of how to achieve that goal. The problem is influenced by certain factors each of which may become minor obstacles or problems. To solve these minor

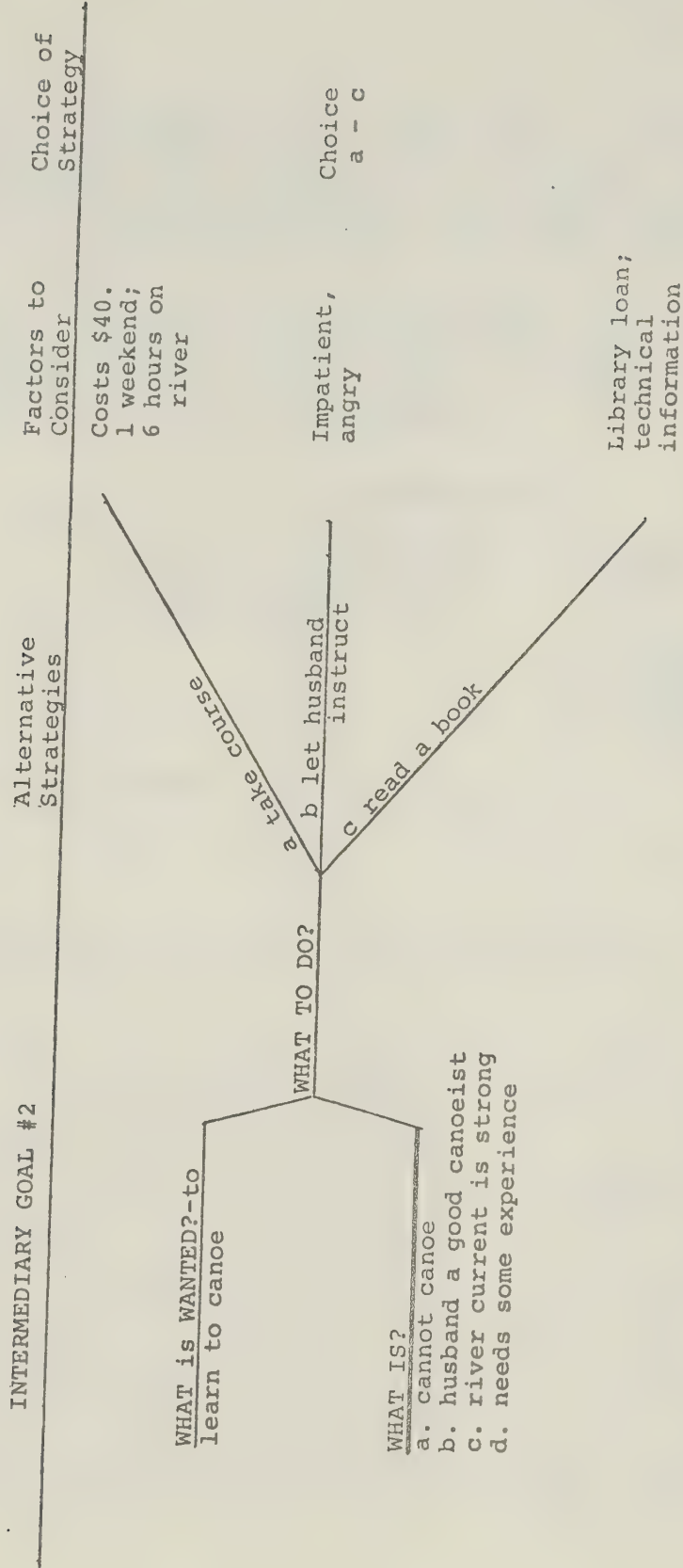
problems, the inquirer sets INTERMEDIARY GOALS which must be attained before the MAJOR GOAL can be achieved.

ILLUSTRATION

MAJOR GOAL - Jessie Blow wants to take a canoe trip this summer.			
Factors influencing goal achievement		INTERMEDIARY GOALS	
MAJOR GOAL	F	1. she cannot swim	1. she wants to learn water survival
	A		
	C	2. she cannot canoe	2. she wants to learn to canoe
	T	3. she has never camped	3. she wants to learn to camp
	O	4. her husband is good at all the above	4. she wants to compete with her husband
	R		
	S		

From the diagram on the following page one can see the process that Jessie must follow in achieving INTERMEDIARY GOAL #1. INTERMEDIARY GOAL #1 demands that Jessie must learn to survive in water. She has four alternative strategies from which to choose. Several factors affect each alternative and Jessie must evaluate each in light of these factors. Alternatives a and b are not acceptable because there is no guarantee of success. Further, alternative a, although reasonable with respect to cost, would last all summer and leave no time to take the trip. Alternative d is unacceptable because Jessie values holiday time with her husband. Alternative c is selected because it guarantees success, is inexpensive, and requires only one weekend of her time.

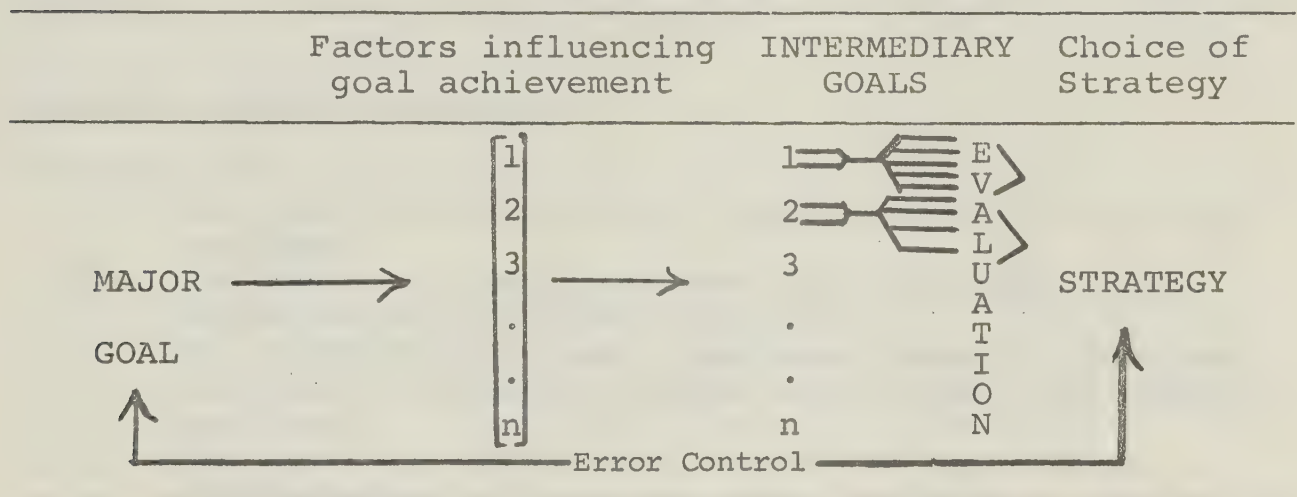




Only a brief explanation is required. Alternative c would be useful with both of the other alternatives. Alternative a was selected over alternative b because Jessie felt that the cost of \$40 was probably less than the cost in terms of frustration which could occur with alternative b.

Jessie must undergo the same process for INTERMEDIARY GOAL #3. Once she has done this she will have attained all her INTERMEDIARY GOALS. The complete process which she has undertaken is illustrated below.

ILLUSTRATION



To summarize: The achievement of the MAJOR GOAL becomes a problem. The problem in turn is affected by several factors which become INTERMEDIARY GOALS. ALL or some of the INTERMEDIARY GOALS must be attained before the MAJOR GOAL can be achieved. Finally, after all the INTERMEDIARY GOALS have been achieved, the inquirer may have concurrently achieved the MAJOR GOAL or the way may be clear for him to face the MAJOR GOAL. Throughout the entire procedure, a complementary process of error-control is occurring. The inquirer continuously checks to see if what occurred through prescriptive inquiry was what had been intended. If there is any discrepancy between what was wanted and what was achieved, the inquirer must correct that discrepancy. In the INDEPENDENCE simulation error-control occurs in debriefing.

WHEN TO USE *INDEPENDENCE*

INDEPENDENCE was designed to teach a decision making process through the simulation of an historical event. The game though fictional, was based on the Nigerian independence movement which occurred between 1945 and 1960. *INDEPENDENCE* should not be used to teach historical events or facts. The actual historical events have been simplified and were used only as a basic model. The intended learning outcomes are process oriented. The game should be used only within the context of a unit of study and not as a separate entity.

Intended Learning Outcomes

To experience:

1. The process or method of inquiry useful in solving problems.
2. The making of decisions and the accepting of the consequences of those decisions.
3. The interrelation and interdependence of different political and ethnic groups when faced with common problems.
4. The problems facing a colony as it approaches independence.
5. The skills of public speaking, persuasive argument, and inter-nation negotiation.
6. The skills of cooperation toward goal attainment.

The teacher using *INDEPENDENCE* could apply it to the introduction of questions of federalism or questions of national unity. Before deciding to use *INDEPENDENCE*, the teacher should evaluate the intended learning outcomes and decide which ones he will emphasize or whether he should develop ones which are more appropriate to his unit of study. The game is flexible enough that it can be adapted to suit any grade from 8 through 12.

The following questions will serve as guidelines for deciding whether to use *INDEPENDENCE*:

1. Is INDEPENDENCE compatible with the curriculum and its objectives?
2. Is INDEPENDENCE flexible enough to serve the purposes of this unit of study?
3. Are the costs of using INDEPENDENCE in terms of time, money and equipment worth the probable results? Are there other techniques which could produce the same results for less cost?
4. Is INDEPENDENCE simple and comprehensible enough to be used with the students in this particular class and grade?

If after considering these questions, one decides to use INDEPENDENCE, the activities which occur will be both rewarding and exciting to observe.

SUGGESTIONS FOR GROUPING THE STUDENTS

INDEPENDENCE can be used with classes of from 24 to 34 students. Optimal group size is 30. With a class of thirty, divide the students into five groups of six members. The groups represented should be: NACRA, HELIX, FAIBLE, LUTTA, and NERVA. NACRA is the mother country; the four remaining groups are the states of LIBRA, the colony.

If the class has fewer than thirty students do one of the following:

1. remove the opposition members and their resources from the groups' materials.
2. leave the opposition in and assign two roles to some individuals. The Minister of Economic Affairs and the Minister of Industry can be effectively combined in all states except HELIX. In HELIX one individual should play both opposition roles. At all times, strive for 6 members for NACRA.

If the class has over thirty students do one of the following:

1. set up a newspaper and have the extra students serve as reporters. If a ditto machine is accessible, the students can produce a 'daily newspaper.' The teacher

- will have to write role descriptions for this group.
2. add an extra person to each group. Call this person the Minister Without Portfolio. He can be required to read the role descriptions of all the members in his group. His function would be to take over in case of absenteeism.
3. add a sixth group. Provision has been made for the formation of such a group, the Kano. The Kano represent a minority and have no vote and no money. They have 1,000 Bargaining Units, 500 of which should be taken from both FAIBLE and LUTTA. The aim of the Kano is to get recognition as a state. Up to four students can be placed in this group but they should be able and aggressive because of the inherent weakness of the group. Less able students would tend to become frustrated and might withdraw from the activities. It is also suggested that this group be added only when INDEPENDENCE is used with high school students.

ACTIVITIES OF THE SIMULATION

ACTIVITY #1	Suggested time <i>1 classroom period</i>
-------------	---

Before beginning INDEPENDENCE spend one period introducing the activity. It is suggested that the following be covered:

1. Introduce Simulation and Simulation Games. Tell the students what simulation is and something about INDEPENDENCE. Explain why you are using INDEPENDENCE and how it relates to what is being studied.

5 minutes

2. A useful activity but one which can be omitted is a comparison of a simulation with an athletic game. A transparency master of the similarities and differences is included in the folder entitled 'Transparency or Ditto Masters.' The similarities and differences are:

Similarities

- a) A set of Players
- b) A set of Rules
- c) An official who interprets and enforces the rules
- d) Resources
- e) An environment (field or classroom)
- f) An outcome which is unknown before the game begins

Differences

- a) Sports emphasize competition
- b) Simulations emphasize cooperation
- c) Sports end in a tie or a win
- d) Simulations end when goals are achieved

5 - 10 minutes

3. Describe the inquiry process. Transparency masters will be found in the folder. Go through an example with the students similar to the one found on pages 6, 7, 8, and 9 of the GAME MASTER'S HANDBOOK.

25 - 30 minutes

ADDITIONAL SUGGESTIONS

1. For homework or in the remaining class time, it may prove useful for the students to work through the inquiry process with an example of their own. Give them the three diagrams as a worksheet.

2. It may be advantageous to divide the students into groups at this time. The reading of the Participant's Manual may be assigned as homework.

Suggested time

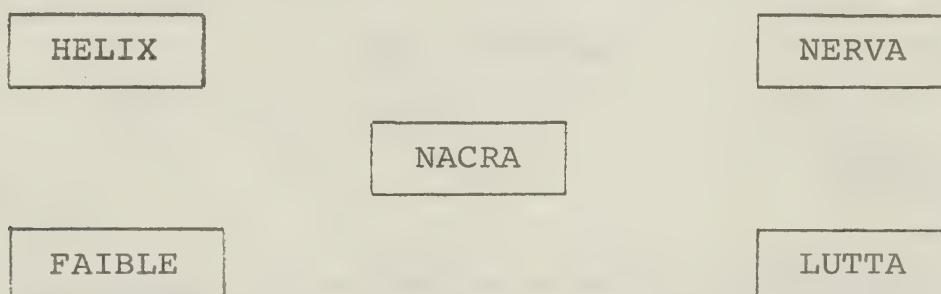
ACTIVITY #2

REMEMBER TO LEAVE ENOUGH TIME TO REARRANGE THE CLASSROOM AT THE END OF THE PERIOD.

1. Introduce INDEPENDENCE. Describe the two countries LIBRA and NACRA. Use the wall map provided to point out the countries. Describe the four states of LIBRA outlining such characteristics as population size, level of literacy, ethnic group names, political parties and opposition. Explain briefly the history and discuss the immediate crisis. (This information is on the first 8 pages of the Participant's Manual).

10 minutes

2. Divide the class into groups. The suggested room arrangement is shown below.



Choose the most suitable method of grouping the students.

5 minutes

3. Distribute the resources to each group. Each group, except the Kano if they have been included, should have 6 Participant's Manuals, 6 name tags, and an identification folder.

5 minutes

4. Tell the students to leave the resource envelopes sealed until told otherwise. Have the students read pages 1 through 8 of the Participant's Manual. This section

(14)

describes the events introduced in 1. above. Discuss any difficulties or problems of understanding.

10 - 15 minutes

5. Read page 9 of the Participant's Manual. Emphasize Rule #4.

2 minutes

6. Read pages 10, 11, and 12 aloud with the students. Make reference to the strategies on page 13.

2 minutes

7. Have the students read carefully pages 13, 14, and 15.

3 - 5 minutes

GOAL SETTING

Suggested time
*1 classroom
period*

ACTIVITY #3

1. The groups first decide whether to work with the opposition. They should question each other, discuss their views and decide whether to ask the opposition to leave.

5 minutes

2. Groups may now open their resources envelopes. If any opposition member joins a group, his resources are added to those of the group.

3. Groups now establish their goals. Each member of a group fills out page 16 of the Participant's Manual. This sheet is entitled 'For My Information.' All members of the group fill out this sheet in the same way. The MAJOR GOAL is set together. The INTERMEDIARY GOALS will usually come from the Ministers. A Master for this sheet is in the appropriate folder. It should be duplicated and placed in each

(15)

booklet before INDEPENDENCE is used.

15 minutes

4. The PREMIER of each region prepares an opening statement with the help of his Ministers. Tell the students that the statements can be true or false, that they can be antagonistic, or can try to win support for a cause. An opening statement should be designed to help achieve goals. It should be limited to fewer than 2 minutes.

10 minutes

5. Have the PREMIERS read the Statements

5 - 10 minutes

ADDITIONAL SUGGESTIONS

You may have the students estimate on the obverse side of page 16 the goals and resources of the other groups.

NEGOTIATION

ACTIVITY #4

Suggested time
*3 - 5 class
periods*

1. Groups prepare for negotiation. Each group should chose 1 INTERMEDIARY GOAL that it wants to achieve and a STRATEGY that will permit it to achieve that goal. The group then selects 1 or 2 of the other groups whom they plan to approach during this round of negotiation. Remind students that negotiation aims at improving resources *as well as* getting support for the strategy of their choice. THERE SHOULD BE NO MOVEMENT BETWEEN GROUPS AT THIS TIME. REMIND THE STUDENTS NOT TO GIVE AWAY ALL THEIR RESOURCES AT ONE TIME.

10 minutes

(16)

2. Negotiation takes place. PREMIERS should remain in their own territory except for emergency negotiations. Except for NACRA, only 1 or 2 group members should be negotiating at any one time. NO CONTRACTS SHOULD BE SIGNED AT THIS TIME. REMIND STUDENTS NOT TO SPEND TOO MUCH TIME WITH ONE NEGOTIATOR.

10 minutes

3. All group members return to their territories with the proposals they have received. The group decides which proposals are acceptable.

5 minutes

4. Sign contracts. These contracts can be made from the ditto master included in the appropriate folder. The GAME MASTER should explain the contract clearly to the class. The signed contracts are handed to the GAME MASTER. The resources are exchanged.

10 minutes

5. Votes are taken for the Strategies on page 13 of the Participant's Manual. Each group casts the number of votes that it has. The Strategy which receives the most votes is the new situation. DO NOT TELL THE STUDENTS WHICH STRATEGY A GROUP VOTED FOR. If a group is "double crossed," it must find out on its own who went against his word.

5 minutes

6. Announce results.

7. Have PREMIERS prepare a statement of reaction to the outcome.

5 minutes

8. PREMIERS read statements.

5 minutes

(17)

9. Debrief (see ACTIVITY #5).

10 minutes

10. Students now have new resources, and a different goal for which to strive. Go through the negotiation process as many more times as is profitable. The game ends when *Independence* is declared or when all the groups have agreed on the same *Strategy* for two consecutive periods.

ADDITIONAL SUGGESTIONS

You may decide to use the first round of negotiation as a practice session. *It is suggested that you do so.* The students are often confused and make poor decisions during this round. It is unfair to penalize them for their mistakes at this stage of the game. Discuss the session. Have the students refer to the inquiry process. One group might outline on the chalkboard the process it followed. Caution students not to give away secrets at this time. Start the game over. In this way the students are not penalized for lack of understanding.

DEBRIEFING

ACTIVITY #5

Debriefing is one of the most valuable experiences of the simulation. It is used to discuss things of significance which occurred during the playing of the game. The times where debriefing is suggested are not arbitrary. Debrief whenever you think it is valuable especially after interesting occurrences. You usually debrief with the whole class but you may find opportunities to debrief with the different groups as well. You may decide not to debrief after each round of negotiation, but it is suggested that you have *at least* one debriefing session before final debriefing at the end of the game.

FINAL DEBRIEFING

This should take place at the end of the game. It is designed to evaluate what happened and to discuss the process of inquiry. Below are some questions that can be used to foster discussion. Add others that are consistent with your intended learning outcomes.

1. Who appears to be the most powerful group? Why?
2. In what way did the apparent strength or weakness of a group influence your strategies?
3. HELIX what were your goals? Did you achieve them? Did you always stay with the same strategy that you had originally selected? Why or why not? (Ask these questions of other groups)
4. NERVA which group members were most influential in determining what you did? Why? Does a person's role determine his influence in the group?
5. Did you follow the method of inquiry that was discussed at the beginning? How did it work? Give an example of one session of negotiation.
6. What do you think might happen to LIBRA in the future? What are her chances for survival? (You might discuss the actual events of Nigeria at this time and the reasons for the civil war in 1967).

ALTERNATIVE SUGGESTIONS

1. If all the students agree on one of the Strategies from 2 to 5 you might change to a full conference meeting. At this session all the groups work together to establish a division of powers between the state and the central government. You might list the following powers on the board: Defense, Currency, Transportation, Communication, Foreign affairs, Education, Justice, Health, Welfare, Local government, etc. The PREMIER of NACRA should chair the meeting.
2. If the class decides on strategy #4 or Strategy #5

you might like to put a strain on the new nation. In collaboration with one of the wealthier states, declare that state an independent nation.

3. If a state votes for strategy #6 two consecutive times, let it separate and see how the other groups react.

4. Have HELIX or LUTTA suggest that the capital city, Tasda, be made government territory and not part of FAIBLE. This would ensure that that trading center always remained LIBRAN territory even if FAIBLE seceded.

5. Have a full conference meeting to discuss whether a secessionist clause should be written into the constitution.

6. Relate the outcome to present world situations. For example:

- a) the possibility of political union of the European Economic Community members.
- b) If NERVA and FAIBLE were to join, the situation might resemble India and Pakistan.
- c) African nations and their colonial development.
- d) The problems facing federal states such as Canada, Australia, Pakistan.
- e) The failure of such federal states as the West Indies, Nigeria (civil war), Pakistan.

GAME MATERIALS

SCENARIO

(common in the Participant's Manual
issued to all participants)

INTRODUCTION

INDEPENDENCE is a simulation game representing a fictional situation in which the nation, LIBRA, is trying to throw off colonial status. She resents the control that another nation, NACRA, has over her economic, political, and social resources.

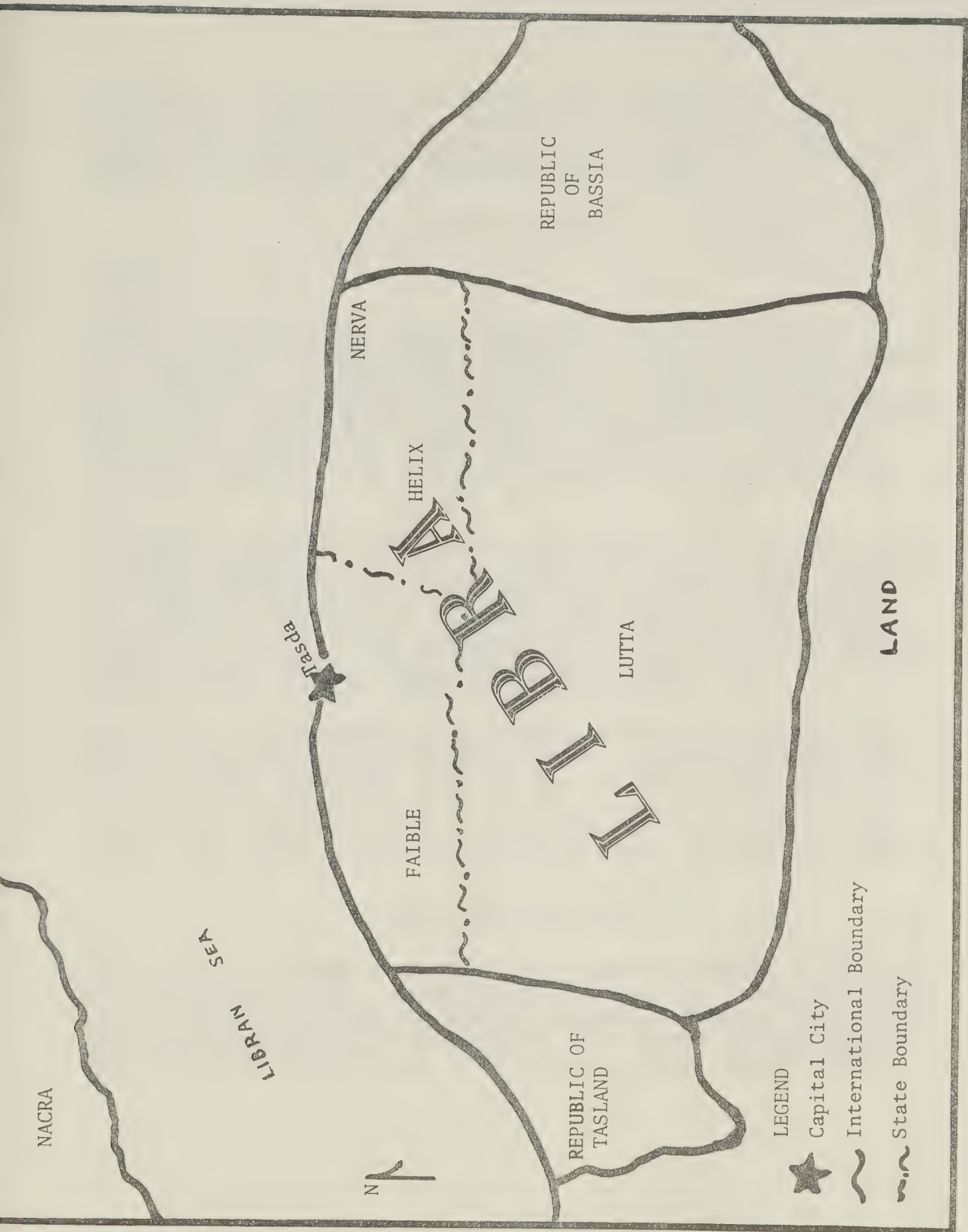
In this simulation you will play the role of a government leader. You may also represent a political party and an ethnic group. You will find it necessary to establish goals and to decide on some course of action which will achieve those goals. The process involved in establishing and reaching the goals is governed by three types of questions: WHAT IS? WHAT IS WANTED? WHAT SHOULD BE DONE TO GET WHAT IS WANTED?

Documents in your Participant's Manual will inform you in detail of your role and of the resources you will have to work with during the simulation. The information provided should enable you to set your goals. *Much of this information is confidential and should be kept secret from the participants in other groups or the opposition members in your own group.*

THE COUNTRIES INVOLVED

The game *INDEPENDENCE* involves two fictional nations, LIBRA and NACRA. LIBRA is a colony which is trying to gain independence from NACRA.

Within LIBRA four states are found. They are Lutta, the southern state; HELIX, the northeastern state; FAIBLE, the northwestern state; and NERVA, a small state in the extreme southeastern corner. LOCATE THESE ON THE MAP ON THE FOLLOWING PAGE. Each of these four states has one dominant ethnic group and at least one active minority group. All of these groups have different cultural and historical backgrounds and each speaks a different language. The differences have often led to jealousy among or between ethnic groups and have led to the immediate crisis.



LUTTA has a population of 18,500,000: HELIX has a population of 8,000,000: FAIBLE has a population of 7,000,000: NERVA has a population of 1,500,000. The total population of LIBRA is therefore 35,000,000.

THE HISTORY

NACRA

NACRA has held LIBRA as a colony for the last 60 years. Originally she ruled LUTTA, FAIBLE and HELIX as three separate colonies. Having three colonies in the same region proved to be expensive for NACRA and 45 years ago she united the three regions into one colony which *she* called LIBRA. NERVA was united with LIBRA after a world war. This war occurred 30 years ago and the UNITED NATIONS ORGANIZATION asked NACRA to take over the governing of NERVA.

When NACRA unified LIBRA, she was aware of the rivalry and jealousy among the different cultural groups. She felt sure that unification would overcome these differences. NACRA has adopted a policy of allowing the Librans to develop at their own rate and has permitted each region a small degree of self government. Each region has a parliament but NACRA controls most of the affairs of government.

NACRA has also brought in her own citizens to run the major industries. She controls most of the economic affairs of LIBRA because she owns most of the industries and controls such natural resources as mines and minerals. NACRA maintains that the Librans are not ready for independence and feels that the way she is governing LIBRA is fair and proper.

THE STATES OF LIBRA

Each state of LIBRA gets its name from the dominant ethnic group of that state. Thus the Helix and the Nerva are found in the northeast, the Faible are found in the northwest, and the Lutta are found in the south. The level of development and the total population of the groups vary considerably.

LUTTA

The Lutta occupy about two-thirds of the total land area of LIBRA and have slightly more than one-half of its total population. They are the most backward of the ethnic groups; only 2% of their members read and write. Most of the people are farmers and grow just enough to feed themselves and their families. The leaders of the Lutta come from aristocratic families and hold their positions by tradition. The conservative population of LUTTA supports these leaders. The Lutta have resisted change and have lagged behind the people of the other regions in LIBRA. LUTTA lacks skilled labour. Because of this thousands of people from the northern regions have moved to LUTTA to fill government and business positions. The Lutta have always regarded these people as unwanted *foreigners*.

HELIX

The Helix occupy an overcrowded state in northeastern LIBRA. The people are aggressive and ambitious. Fifty years ago few Helix were educated. Now 16% have received education and many of these have attended trade schools and universities. This educated 'elite' holds most of the important positions in HELIX; many of its members hold important positions in other states as well. Because of the overcrowding of the state, many of the Helix have migrated to other states of LIBRA.

FAIBLE

The Faible are the wealthiest, most advanced, and best educated group of people in LIBRA. They are found in key government jobs and in the professions. The region is the most industrialized of LIBRA and it is the center of trade into and out of LIBRA. Eighteen percent of the people are well educated and the Faible culture is jealously retained. The Faible think of themselves as Faible first, Librans second.

NERVA

The Nerva are a small but well organized ethnic group. They were once ruled by another powerful nation but became a colony of NACRA 30 years ago. NACRA originally united NERVA with HELIX but the Nerva demanded and succeeded in getting a separate state. NACRA has guaranteed that the Nerva may separate from LIBRA to form a new nation or to join another country such as BASSIA. This was part of the agreement NACRA made when she agreed to take over NERVA. The Nerva are cohesive and care little for the problems of the other states. The twelve percent of well educated Nerva control the important government and business positions. Nerva has few industries and few natural resources.

OTHER GROUPS

In addition to the four major ethnic groups who dominate the four states of LIBRA, there are a number of small ethnic groups which are minorities within the states. Some minorities have representation in the state parliaments but many do not have any representation. One such group is the Kano. The Kano live in the southern third of FAIBLE and the north-western part of LUTTA. The Kano number about one million, but the governments of FAIBLE and LUTTA have ignored them. Less than one percent of the Kano are educated. The Kano feel that they should become a state. If the GAME MASTER wishes he may permit representatives of the Kano to attend this conference.

THE CRISIS

All four states support an independent LIBRA. However, they differ with respect to the timing and form that independence should take. As the demands for independence have increased, intergroup rivalries and jealousies have also increased. The Lutta are increasingly fearful that independence would simply mean trading domination by NACRA for domination by FAIBLE and HELIX.

Six months ago, LUTTA, increasingly worried over the threat of domination by the two powerful northern states, began to agitate for secession (separation) from the rest of LIBRA. This started after HELIX demanded immediate independence. The Lutta feel that because of their backwardness, they could not compete in LIBRA and fear that control of their region would fall to HELIX and FAIBLE. Because of this fear a group of radical Lutta went on a rampage through the cities of LUTTA with the aim of ridding LUTTA of the Helix and Faible who had moved there. Riots occurred and many Helix were killed. NACRA was forced to intervene and restore and maintain order by military control.

NACRA wants to remain in LIBRA and settle the dispute without further bloodshed. HELIX and FAIBLE want to solve the problem themselves.

NACRA has invited representatives of the states to an Independence Convention. She has pledged to work for an independent LIBRA, *when the time is right*. She has also guaranteed that each region will get a 'fair deal.' The states are skeptical of the proposed conference, but have agreed to attend.

All states have sent a delegation of six ministers. Each delegation is led by the Premier of the region and each has members from both majority and minority political parties. The political parties are based on ethnic lines.

THE DELEGATIONS

HELIX: 6 Votes

- a. 4 members of the NATIONAL PARTY of LIBRA - Helix ethnic group members.

POSITIONS:

PREMIER
 MINISTER OF ECONOMIC AFFAIRS
 MINISTER OF LOCAL AFFAIRS
 MINISTER OF EDUCATION AND INDUSTRY

- b. 2 members of the LIBRAN INDEPENDENCE PARTY - a small minority.

POSITIONS:

LEADER OF THE OPPOSITION
 OPPOSITION MINISTER OF LOCAL AFFAIRS

FAIBLE: 6 Votes

- a. 5 members of the ACTION GROUP - Faible ethnic group members.

POSITIONS:

PREMIER
 MINISTER OF ECONOMIC AFFAIRS
 MINISTER OF LOCAL AFFAIRS
 MINISTER OF EDUCATION
 MINISTER OF INDUSTRY

- b. 1 member of the NATIONAL PARTY of LIBRA - Helix minority.

POSITION:

LEADER OF THE OPPOSITION

LUTTA: 6 Votes

- a. 5 members of the SOUTHERN PEOPLE'S PARTY - Lutta ethnic group members.

POSITIONS:

PREMIER

MINISTER OF ECONOMIC AFFAIRS
 MINISTER OF LOCAL AFFAIRS
 MINISTER OF EDUCATION
 MINISTER OF INDUSTRY

- b. 1 member of the LUTTA UNION - a radical youth group.

POSITION:

LEADER OF THE OPPOSITION

NERVA: 2 Votes

- a. 5 members of the NERVA CULTURAL UNION - Nerva ethnic group members.

POSITIONS:

PREMIER
 MINISTER OF ECONOMIC AFFAIRS
 MINISTER OF LOCAL AFFAIRS
 MINISTER OF INDUSTRY
 MINISTER OF EDUCATION

- b. 1 member of the NERVA DEMOCRATIC PARTY - a small minority.

POSITION:

LEADER OF THE OPPOSITION

NACRA: 0 Votes

POSITIONS:

PREMIER
 MINISTER OF ECONOMIC AFFAIRS
 GOVERNOR OF LUTTA
 GOVERNOR OF HELIX
 GOVERNOR OF FAIBLE
 GOVERNOR OF NERVA

The Kano:

POSITIONS:

LEADER
 ECONOMIC EXPERT
 EDUCATION EXPERT
 LOCAL AFFAIRS EXPERT

RULES OF THE SIMULATION

1. The director of the simulation is referred to as the GAME MASTER.
2. All directives and directions of the GAME MASTER must be respected and obeyed.
3. The limits must be strictly adhered to.
4. EACH GROUP WILL BE ASSIGNED A GROUP TERRITORY. All members *must* remain in this territory unless during a period of negotiation or a full conference meeting.
5. Groups who want extra periods for negotiation may apply to the GAME MASTER.
6. Agreement made between groups must be reported to the GAME MASTER by submitting a signed contract. (Contracts can be obtained from the GAME MASTER).
7. All groups must submit truthful information to the GAME MASTER when it is requested.
8. Make sure that you can afford to take the action you propose.
9. It is the extent to which you achieve your goals that determines your success in the game.
10. If any member of an opposition group within a delegation feels that he cannot work within that group, he may apply IN WRITING to join another group or to sit as an independent member.
11. If a group feels that it cannot participate, it may apply to withdraw, IN WRITING to the GAME MASTER. The cost of this move is 1,000 bargaining units and \$1,000,000. If the group is permitted to withdraw, it must sit in an observer role. Observers may enter the negotiations but they do not have a vote.
12. A group may exclude opposition members at any time during the simulation. However, you may feel that it is advantageous to try to work with your opposition present.

THE SIMULATION PROCEDURE

Participants in INDEPENDENCE will need to *set* and *strive* for two types of goals. The group should set one MAJOR GOAL that it wants to achieve by the END OF THE SIMULATION. For example, your MAJOR GOAL might be: A COMPLETELY INDEPENDENT STATE WITHIN 5 YEARS WITH ONE CENTRAL GOVERNMENT AND NO STATE GOVERNMENTS.

The second type of goal that must be set is designed INTER-MEDIARY GOALS. Such goals must be achieved before the MAJOR GOAL is achieved. For example, The Education Minister may find that, before his region can afford independence, at least 20% of the population must be educated. If 10% are now educated, he may find that he will need at least \$20,000,000 in order to reach the 20% level WITHIN FIVE YEARS. Before the MAJOR GOAL can be achieved the INTER-MEDIARY GOALS must be attained.

HOW TO ACHIEVE GOALS

As a group, you will need to choose the BEST strategy for achieving your goal. There are 6 strategies (see p. 13). If you are striving for an INTERMEDIARY GOAL you may choose one strategy while at a later time, when you are striving for your MAJOR GOAL, you may choose a completely different strategy. In other words, YOU MUST CHOOSE THE STRATEGY THAT IS MOST LIKELY TO HELP YOU ACHIEVE THE GOAL THAT YOU ARE STRIVING FOR AT A PARTICULAR TIME.

After you have chosen a strategy, a period of negotiation will take place. This is a 10 minute period during which you will try to get other groups to support your strategy. You will find it necessary to bargain with the other groups.

For example: Group X may select strategy #2.
 Group Y offers Group X \$20,000,000 to vote for strategy #3.
 Group X now has 2 alternative courses of action:

1. to support Strategy #2
2. to support Strategy #3

Group X must decide whether it is more advantageous to vote for Strategy #3 and receive \$20,000,000, or to stay with Strategy #2.

Because Group X may receive other offers during this negotiations session, it is important that its negotiators DO NOT indicate whether the Group will accept or reject the offer. Simply tell the Group who makes the offer that you will consider it.

After this period of negotiation each group will have 5 minutes in which to consider ALL offers. The Group as a whole discusses each proposal and decides which one or ones it will accept. A further 5 minutes will be allowed for the signing of contracts and the exchanging of resources that have been agreed upon.

A vote will then be taken. All voting members will cast a vote for the strategy of their choice. Majority rules and the strategy receiving the most votes is accepted. If no strategy receives over 50% of the vote, the situation remains unchanged.

RESOURCES

Three types of resources will be used in the simulation:

MONEY - Money is distributed according to the *economic stability* of your state. It is based on industrial development, productive natural resources and trade. The more advanced you are in these areas, the more money you will have.

BARGAINING UNITS - Bargaining Units are distributed according to the *political stability* of your state. It is based on the number of people who supported you in the last election. If 3,000,000 people supported your party, you will have 3,000 Bargaining Units. In other words, for every 1,000 people that support you, you will have 1 Bargaining Unit.

VOTES - Votes are distributed to members from the states of LIBRA. FAIBLE, HELIX and LUTTA each have 6 votes. Because she is so small, NERVA has only 2 votes. The total number of votes is 20. Majority rules. Therefore, in order that a strategy be accepted, *at least* 11 votes must be cast for that strategy. In case of a tie in which 10 people vote for one strategy and 10 for another strategy, the PREMIER of NACRA has a casting vote. Otherwise NACRA has no vote.

The resources that your group has will be found in a sealed envelope in your materials. DO NOT OPEN THIS ENVELOPE UNTIL YOU ARE TOLD TO DO SO.

Negotiation is aimed at improving your resources. If you lack money but have sufficient bargaining units you may decide to exchange some of your bargaining units for money or votes. Loss of bargaining units does not necessarily mean that you lose supporters, it simply means that you have agreed to support another state in an area of common interest. It is wise to maintain a certain level of both Money and Bargaining Units. DO NOT GIVE AWAY ALL YOUR RESOURCES IN THE FIRST ROUND.

STRATEGIES FOR SETTLING THE CRISIS

1. REMAIN AS AT PRESENT. NACRA WILL CONTINUE TO CONTROL LIBRA. EACH REGION WILL DEVELOP AT ITS OWN RATE. INDEPENDENCE WILL BE GRANTED WHEN ALL REGIONS ARE READY FOR IT.
2. SET UP STRONG STATE GOVERNMENTS WITH A WEAK CENTRAL GOVERNMENT. NACRA WILL SUPERVISE THE GOVERNMENT OF EACH STATE UNTIL IT IS READY FOR STATE SELF-GOVERNMENT. THIS MEANS THAT EACH STATE WILL GAIN SELF-GOVERNMENT AT A DIFFERENT TIME BUT INDEPENDENCE WILL BE GRANTED TO LIBRA AFTER ALL STATES ARE SELF-GOVERNING.
3. SET UP A STRONG CENTRAL GOVERNMENT WITH WEAK STATE GOVERNMENTS. NACRA WILL CONTROL BOTH THE STATE AND THE CENTRAL GOVERNMENTS. INDEPENDENCE WILL BE GRANTED LIBRA WHEN THE CENTRAL GOVERNMENT IS STRONG.
4. SET UP ONE CENTRAL GOVERNMENT WITH WEAK STATE GOVERNMENTS. THIS WILL MEAN THE PROCLAMATION OF IMMEDIATE INDEPENDENCE FOR LIBRA. NACRA WILL WITHDRAW IMMEDIATELY.
5. SET UP STRONG STATE GOVERNMENTS WITH A WEAK CENTRAL GOVERNMENT. THIS WILL MEAN THE PROCLAMATION OF IMMEDIATE INDEPENDENCE FOR LIBRA. NACRA WILL WITHDRAW IMMEDIATELY.
6. HAVE YOUR STATE BREAK AWAY FROM LIBRA. DECLARE INDEPENDENCE FROM NACRA AND LIBRA. THIS WILL MEAN THAT YOU WILL BECOME A SEPARATE NATION.

INDEPENDENCE
Participant's Manual
NACRA

TOP SECRET

PROFILE: NACRA

You have governed LIBRA for the last 60 years. You feel that you have been fair and have governed well.

You feel that LIBRA has benefitted from your presence but realize that you have benefitted too. You control the mineral resources in LIBRA and you make money by buying LIBRA'S raw materials and selling her your manufactured goods.

You believe that LIBRA is not ready for independence and you have called this conference to try to settle the problems in LIBRA. At all cost you want this conference to end in agreement.

You have guaranteed that LUTTA will not be forced into independence now. You want more time to work on her development. You feel that each state should develop at its own rate and plan to propose state self-government for the stronger states.

You hope to be able to persuade NERVA to remain in LIBRA. Under no circumstance will you allow the other states to separate from LIBRA. You will use force to keep LIBRA together if you have to.

NACRA is very wealthy and highly industrialized. The budget for this conference is only a small portion of NACRA'S total budget. NACRA has a large army that you can use if any problems arise.

RESOURCES

\$50,000,000

You have no Bargaining Units and you do not need any.

ROLE DESCRIPTION: GOVERNOR OF NERVA ** NACRA

You are responsible for governing NERVA but you are a minister in NACRA'S government. You think that NERVA should remain part of LIBRA.

You want to get more money for NERVA. You feel that NERVA may decide to separate from LIBRA but that if she is given enough money she might agree to stay in LIBRA.

In any event, you feel that NACRA should stay in NERVA until she is a strong state within LIBRA or until she is strong enough to become an independent nation.

You are the chief negotiator to NERVA.

ROLE DESCRIPTION: PREMIER ** NACRA

You are in charge of the government in NACRA. You are also in charge of all the affairs concerning LIBRA. At all cost, you want this convention to end in agreement.

You do not want to grant independence to LIBRA. You are willing to offer some states self-government instead of immediate independence.

You are responsible for making sure that your ministers carry out your instructions at all times. YOU SHOULD LISTEN TO THE ADVICE OF YOUR MINISTERS BECAUSE MANY OF THEM HAVE EXPERT KNOWLEDGE.

You should chair cabinet meetings and run them in an orderly fashion. You will be called upon to make public statements at several times during the simulation.

ROLE DESCRIPTION: GOVERNOR OF FAIBLE ** NACRA

You are responsible for governing FAIBLE but you are also a minister in NACRA'S government. You feel that the Faible are very advanced and capable of handling their own affairs.

You want immediate state self-government for FAIBLE. You think that this will satisfy FAIBLE and that she will not demand immediate independence for LIBRA.

You do not feel that FAIBLE needs any additional aid.

You are the chief negotiator to FAIBLE.

ROLE DESCRIPTION: MINISTER OF ECONOMIC AFFAIRS ** NACRA

You are in charge of the \$50,000,000 that has been allotted for this conference. You have decided to divide the funds in the following way: LUTTA - 35%, FAIBLE - 30%, HELIX - 30%, and NERVA - 5%. You know that LUTTA thinks that this is unfair because she has over half of the population and believes that she should have over half of the money. However, if either FAIBLE or HELIX get less than 30%, you believe that they would become upset.

You want to use the money to get agreement from all regions.

You should listen to the other ministers carefully because they have expert information on LIBRA. Their comments can help you in deciding to distribute the money in a fair way.

You do not negotiate except in your own area.

ROLE DESCRIPTION: GOVERNOR OF LUTTA ** NACRA

You are responsible for governing LUTTA but you are a minister in NACRA'S government as well. You are concerned that LUTTA is so far behind the other regions of LIBRA and feel that LUTTA is definitely NOT ready for independence nor for state self-government.

You feel that LUTTA deserves more money from NACRA. You want to get as much money as you can so that LUTTA'S development can be accelerated.

You think that each region should be able to concentrate on its own development without interference from other regions.

You are the chief negotiator to LUTTA.

ROLE DESCRIPTION: GOVERNOR OF HELIX ** NACRA

You are responsible for governing HELIX but you are a minister in NACRA'S government as well. You have spent many millions in aid to HELIX and you have helped her develop her industries and education.

You want NACRA to grant state self-government to HELIX in the NEAR-FUTURE. If you are persuasive, HELIX might accept this instead of pushing for immediate independence for LIBRA.

You are chief negotiator to HELIX.

INDEPENDENCE
Participant's Manual
FAIBLE

TOP SECRET

REGIONAL PROFILE: FAIBLE

You seek independence for LIBRA but prefer to concentrate on getting regional self-government for FAIBLE. You tend to support HELIX'S call for immediate independence but feel that if the issue is forced, LUTTA will separate and LIBRA will collapse.

You want a government which allows each region to progress at its own rate and to manage its own affairs without interference from other states. You want immediate state self-government.

You feel that LIBRA should aim for independence in 8 years time. By then the states should be approaching equality.

You control most of the wealth and trade of LIBRA. All the goods that come into or leave LIBRA must come to your trading centers.

You tend to support the cause of minority groups.

You are members of the ACTION GROUP and will have to decide whether to work with the LEADER OF THE OPPOSITION.

RESOURCES

6,000 Bargaining Units

\$10,000,000

ROLE DESCRIPTION: MINISTER OF INDUSTRY ** FAIBLE

You are responsible for the development of industry in FAIBLE. You think that FAIBLE is becoming industrial and you want to keep her industry growing. You know that FAIBLE could support herself industrially if LIBRA became independent now, but you feel that she would be more stable in 5 years time.

You are the chief negotiator to HELIX.

ROLE DESCRIPTION: MINISTER OF LOCAL AFFAIRS ** FAIBLE

You are responsible for maintaining public support for your policies. You feel that FAIBLE lacks support and want to increase your bargaining units to 12,000 before independence comes for LIBRA. You now have 6,000 bargaining units.

You are the chief negotiator to LUTTA.

ROLE DESCRIPTION: MINISTER OF EDUCATION ** FAIBLE

You are responsible for the education programs in FAIBLE. 18% of your people read and write. Eventually you want to establish schools for all children. You have enough skilled people to fill government and business positions. You think that FAIBLE should strengthen her state government before she works for independence.

You are the chief negotiator to NERVA.

ROLE DESCRIPTION: MINISTER OF ECONOMIC AFFAIRS ** FAIBLE

You manage the economic affairs of FAIBLE. You are the wealthiest region of FAIBLE and you want this economic strength to continue.

You want FAIBLE to work for a strong state government that controls all the economic affairs of FAIBLE without interference from the other states in LIBRA. If the other states interfere in your economic affairs you will advise the PREMIER to separate FAIBLE from LIBRA.

You are in charge of the money that FAIBLE has available for the simulation.

You are the chief negotiator to NACRA.

ROLE DESCRIPTION: PREMIER ** FAIBLE

You are responsible for governing FAIBLE. You place FAIBLE'S development before LIBRA'S independence. You want state self-government now and feel that independence should come later.

You are responsible for ensuring that your ministers carry out your instructions at all times. YOU SHOULD LISTEN TO THEIR ADVICE BECAUSE THEY ARE EXPERTS.

You should chair cabinet meetings and run them in an orderly fashion. You will be called upon to make public statements several times during the simulation.

You will have to decide whether the Leader of the Opposition should sit with your delegation. If he does he must accept all your policies.

Each of your ministers has been assigned duties as a negotiator.

REGIONAL PROFILE: FAIBLE OPPOSITION

FAIBLE is the wealthiest state of LIBRA. Most of the people who live in FAIBLE are members of the Faible ethnic group. However, about 1,000,000 people are members of your ethnic group, the Helix.

FAIBLE controls the major trade routes in LIBRA and it is the most advanced state. Your party has always worked for a strong central government and you feel that FAIBLE is too powerful.

You realize that your party is also represented by the delegation from the state of HELIX. You will have to decide whether to sit with the delegation from FAIBLE or whether to join HELIX.

RESOURCES

1,000 Bargaining Units

LEADER OF THE OPPOSITION: FAIBLE

You represent the Helix minority that lives in FAIBLE. You want immediate independence for LIBRA under one central government. You believe that the state governments are too strong and that they should be weak. You want protection for minorities. You have often been persecuted by the Faible.

INDEPENDENCE
Participant's Manual
HELIX

TOP SECRET

REGIONAL PROFILE: HELIX

You are "fed up" with being governed as a colony and you are sickened by the continued presence of a foreign power which makes and administers your laws without your consent. You want immediate independence so that LIBRA can handle her own affairs.

You want a government to be set up which concentrates all power in the central government. You believe that NACRA has made a mistake by allowing the states of LIBRA to become so strong. You feel that the central government should control all affairs of government.

You are extremely bitter about the recent conflict in LUTTA. Many Helix were killed. You feel that, if LIBRA were to be granted immediate independence, she could easily settle this problem even if force were necessary.

You are members of the NATIONAL PARTY of LIBRA. The opposition party, the LIBRAN INDEPENDENCE PARTY, has always opposed your policies and you will need to decide whether they should sit with your delegation.

RESOURCES

5,000 Bargaining Units

\$4,000,000

ROLE DESCRIPTION: PREMIER ** HELIX

You are responsible for governing HELIX. You are critical of NACRA's handling of the problem in LUTTA. You want NACRA to withdraw and leave LIBRA to solve her own problems. You will try to get FAIBLE to join with you in seeking immediate independence. You want one strong central government to be set up and you want the state governments to be weak.

You are responsible for making sure that your ministers carry out your instructions at all times. YOU SHOULD LISTEN TO THEIR ADVICE BECAUSE THEY ARE EXPERTS.

You should chair the cabinet meetings and run them in an orderly fashion. You will be called upon to make public statements several times during the simulation.

Each of your ministers has been assigned duties as a negotiator to NACRA or the other regions of LIBRA. The Minister of Local Affairs has two assignments. If other people ask to join your group you may decide to reassign negotiation duties.

ROLE DESCRIPTION: MINISTER OF ECONOMIC AFFAIRS ** HELIX

You are responsible for managing the economic affairs of HELIX. HELIX is the second wealthiest region in LIBRA. You have a large reserve of coal and you have some oil. You export much of your agricultural products.

NACRA controls many of HELIX's resources and you want to control these resources yourself.

Most of your trade has to travel through FAIBLE. You want to keep LIBRA under one central government so that these trade routes always remain open. You would also like to begin to develop your own trading centers and you think that NACRA should provide \$10,000,000 for this purpose.

You are chief negotiator to NACRA.

ROLE DESCRIPTION: MINISTER OF EDUCATION AND INDUSTRY **
HELIX

You are responsible for both education and industry. You have set up many schools in HELIX and you are proud that 16% of your people can read and write. Eventually you want to set up schools for all children. You have just about enough skilled people to fill the important jobs in business and government. You want \$2,000,000 to increase your programs. Once you have this amount you feel that HELIX will be ready for Independence.

You are the chief negotiator to LUTTA.

ROLE DESCRIPTION: MINISTER OF LOCAL AFFAIRS ** HELIX

You are responsible for maintaining public support for your government's policies. You have 5,000 bargaining units but feel that you can count on an additional 2,000 bargaining units from other regions. You want, if you can, to increase your total bargaining units to 10,000 before independence. You feel that your government would be in trouble if it had any fewer than 5,000 bargaining units.

You are the chief negotiator to both FAIBLE and NERVA.

REGIONAL PROFILE: HELIX OPPOSITION

HELIX is a small, overcrowded state in LIBRA. You believe that LIBRA would have developed more quickly if everything had been owned and run by the state.

You have always disagreed with the NATIONAL PARTY of LIBRA and you will have to decide whether to sit with the majority delegation from HELIX or whether to sit as independent representatives.

RESOURCES

2,000 Bargaining Units

ROLE DESCRIPTION: LEADER OF THE OPPOSITION ** HELIX

You cannot support any of the major parties in LIBRA. You want to sit as an independent delegation at this convention. You want the people of LIBRA to unite and overthrow NACRA and the governments in all the states. You want government by the common people. You want ALL parties abolished.

You think that there should be one government only for all of LIBRA. All individual state governments should be abolished. The Central Government of LIBRA should own all industry and control all affairs of the country.

You are the Leader of the Opposition in HELIX. Your party has 3,000,000 supporters in HELIX.

ROLE DESCRIPTION: OPPOSITION MINISTER OF LOCAL AFFAIRS **
HELIX

You are responsible for maintaining and increasing the support for your party. You need to get both money and bargaining units. The governing party of HELIX has not given you any funds and you will have to go to other groups.

INDEPENDENCE
Participant's Manual
LUTTA

TOP SECRET

REGIONAL PROFILE: LUTTA

You feel that LUTTA has no links binding it to the other regions of LIBRA. You feel that if independence comes too quickly, LUTTA will be at the mercy of the more progressive states to the North. At the moment you believe that separation is the only way to protect the Lutta from domination. Unless the Northern regions agree to leave you alone you will break away.

You need time to concentrate on developing LUTTA's resources. If you agree to join LIBRA, it will be only when you feel you are equal to FAIBLE and HELIX. You want strong regions and feel that there should be no central government that can interfere in your affairs.

You want the states of LIBRA to be united only for economic reasons. LUTTA would have difficulty surviving if she did not have the trading centers of FAIBLE.

You are members of the SOUTHERN PEOPLE'S PARTY and you will have to decide whether to work with the LEADER OF THE OPPOSITION.

RESOURCES

15,500 Bargaining Units

\$2,000,000

ROLE DESCRIPTION: PREMIER ** LUTTA

You are responsible for governing LUTTA. You want to concentrate on LUTTA's economic and social development for the next several years. You want independence for LIBRA but not before LUTTA is equal to the other regions. You want NACRA to remain in LUTTA and you want LIBRA to remain a colony. You think it will take LUTTA at least 10 years to catch up to the other regions.

You are responsible for making sure that your ministers carry out your instructions at all times. YOU SHOULD LISTEN TO THE ADVICE OF YOUR MINISTERS BECAUSE MANY OF THEM HAVE EXPERT KNOWLEDGE.

You should chair cabinet meetings and run them in an orderly fashion. You will be called upon to make public statements at several times during the simulation.

Your ministers have been assigned duties as negotiators to the other states of LIBRA and to NACRA.

ROLE DESCRIPTION: MINISTER OF ECONOMIC AFFAIRS ** LUTTA

You manage the economic affairs of LUTTA. LUTTA is economically backward and she must import most of her goods. You need at least \$10,000,000 for economic development before independence is possible. You want strong regional government in which LUTTA controls her own affairs. You feel that LUTTA cannot afford to separate from LIBRA because you are economically dependent on FAIBLE for trade.

You are in charge of the money that LUTTA has for the simulation.

You are the chief negotiator to NACRA.

ROLE DESCRIPTION: MINISTER OF LOCAL AFFAIRS ** LUTTA

You are responsible for maintaining public support for your party. You have 15,500 Bargaining Units. This indicates that you have 15,500,000 supporters. You feel that you have major support and that even if you gave away 5,000 Bargaining Units, you would still have adequate support.

You want to keep the Helix and the Faible out of LUTTA. You feel that they should stay in their own states. You think that LUTTA should be allowed to develop at her own rate of speed without interference from the Northern states.

You are the chief negotiator to NERVA.

ROLE DESCRIPTION: MINISTER OF INDUSTRY ** LUTTA

You are responsible for developing industry in LUTTA. You want to begin establishing industry and feel that you need at least \$5,000,000. You want your PREMIER to seek loans for this amount from NACRA.

You feel that LUTTA would have difficulty surviving if she were to separate from LIBRA. You have no industries and you could not maintain independence as a separate nation unless NACRA gave you an additional \$10,000,000 in support.

You are the chief negotiator to FAIBLE.

ROLE DESCRIPTION: MINISTER OF EDUCATION ** LUTTA

You are responsible for the education programs in LUTTA. Only 2% of your people read and write. You want to set up schools so that more of your people can become educated. You need at least \$10,000,000 put into education before LUTTA can become independent. You feel that if you do not secure these education programs soon, LUTTA will get further and further behind the Northern states. You do not have enough educated people to fill the important positions in business and government.

You are the chief negotiator to HELIX.

REGIONAL PROFILE: LUTTA OPPOSITION

LUTTA is a large, undeveloped area of LIBRA. Although LUTTA covers half of the land area of LIBRA and has over half of the total population, she is the most backward state.

You blame the backwardness of LUTTA on the SOUTHERN PEOPLE'S PARTY and on NACRA. You think that the NPP is too old fashioned and conservative. Your party, the LUTTA UNION, is made up of young, well educated people and you feel that if you were governing the state of LUTTA that she would develop more rapidly.

You have never had much support from the government of LUTTA. You know, however that your policies are much the same as those of HELIX. You must decide whether to work with the rest of the delegation from LUTTA or whether to sit with another group or as an independent.

RESOURCES

3,000 Bargaining Units

ROLE DESCRIPTION: LEADER OF THE OPPOSITION ** LUTTA

You represent a small minority who oppose the government of the SOUTHERN PEOPLE'S PARTY. You want immediate independence for LIBRA. You want a strong central government and think that the states should have very little power.

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NERVA

TOP SECRET

REGIONAL PROFILE: NERVA

NERVA has been a state for the last 5 years. Before that she was part of HELIX. You feel that you have nothing in common with the other states of LIBRA. You want to separate from LIBRA and join the country to the east, BASSIA.

You do not want to join in the independence of LIBRA under any circumstances. However, BASSIA has said that you cannot join that country for at least five years.

You feel that you have been neglected by the Librans and that you deserve more money. You dislike the HELIX and the other Librans because you feel they have too much influence on your economy. You feel that the minority groups in the other states have also had a 'bad deal.'

The LEADER OF THE OPPOSITION has usually opposed all of your policies in the past and you will need to decide whether he should sit with your delegation.

RESOURCES

1,200 Bargaining Units

\$500,000

ROLE DESCRIPTION: PREMIER ** NERVA

You are responsible for governing NERVA. You want to concentrate on NERVA's economic development because you plan to separate from LIBRA. BASSIA will not let you join for at least 5 years and you want to get AS MUCH AS YOU CAN from NACRA in the next 5 years.

You are responsible for making sure that your ministers carry out your instructions at all times. YOU SHOULD LISTEN TO THEIR ADVICE BECAUSE THEY ARE EXPERTS.

You should chair the cabinet meetings and run them in an orderly fashion. You will be called upon to make public statements during the simulation.

You will have to decide whether you want the LEADER OF THE OPPOSITION to sit with your delegation. You have both votes that have been allotted to your region.

ROLE DESCRIPTION: MINISTER OF ECONOMIC AFFAIRS ** NERVA

You manage the economic affairs of NERVA. Yours is a poor region because you lack natural resources and industry. You have to import almost all of your goods. You want to increase the money that you have available but the only way you can do this is to borrow. You want to get at least \$1,000,000. You think that NACRA owes you this amount.

You are in charge of the money that NERVA has to work with during the simulation.

You are the chief negotiator to NACRA. You should listen to the other ministers carefully because you may have to negotiate on their behalf as well.

ROLE DESCRIPTION: MINISTER OF EDUCATION ** NERVA

You are responsible for the education programs in NERVA. 12% of your people read and write but you think this figure should be higher. You do not have enough skilled people to fill the important business and government positions in NERVA and, as a result, you have been invaded by Helix. You want to educate enough people to fill the positions now held by Helix so that you can throw the Helix out of your region. You want \$4,000,000 to achieve this objective. You will need to have this amount before NERVA can afford to become independent.

You are chief negotiator to FAIBLE. You want to try to get FAIBLE to support you.

ROLE DESCRIPTION: MINISTER OF LOCAL AFFAIRS ** NERVA

You are responsible for maintaining public support for your government and its policies. You have 1,200,000 supporters and they all live in NERVA. You do not have support in any other state and you do not feel that you need more support. You want NACRA to make sure that the other states do not interfere in your affairs.

You are the chief negotiator to LUTTA. You sympathize with the Lutta because they have had the same problems as NERVA. They also have had FAIBLE and HELIX interfere in their affairs.

ROLE DESCRIPTION: MINISTER OF INDUSTRY ** NERVA

You are responsible for the development of industry in NERVA. NERVA has no industry and you want to establish some. You have to get at least \$5,000,000 in order to do this. You feel that NACRA has mistreated NERVA and owes you at least this amount.

You are the chief negotiator to HELIX.

REGIONAL PROFILE: NERVA OPPOSITION

NERVA has been a state for the last 5 years. Before that she was part of the state of HELIX. You feel that NERVA should remain part of LIBRA and that she should try to develop more quickly.

You feel that if your party was governing, NERVA would develop more quickly. You feel that if NERVA breaks away from LIBRA, the minority that you represent should have the right to form a separate state and remain part of LIBRA.

RESOURCES

300 Bargaining Units

ROLE DESCRIPTION: LEADER OF THE OPPOSITION ** NERVA

You represent a small group of people who live in NERVA and you think that NERVA should remain part of LIBRA. You do not want to join BASSIA. You want NACRA to guarantee that NERVA will remain in LIBRA. You think that LIBRA should have a strong central government and weak state governments.

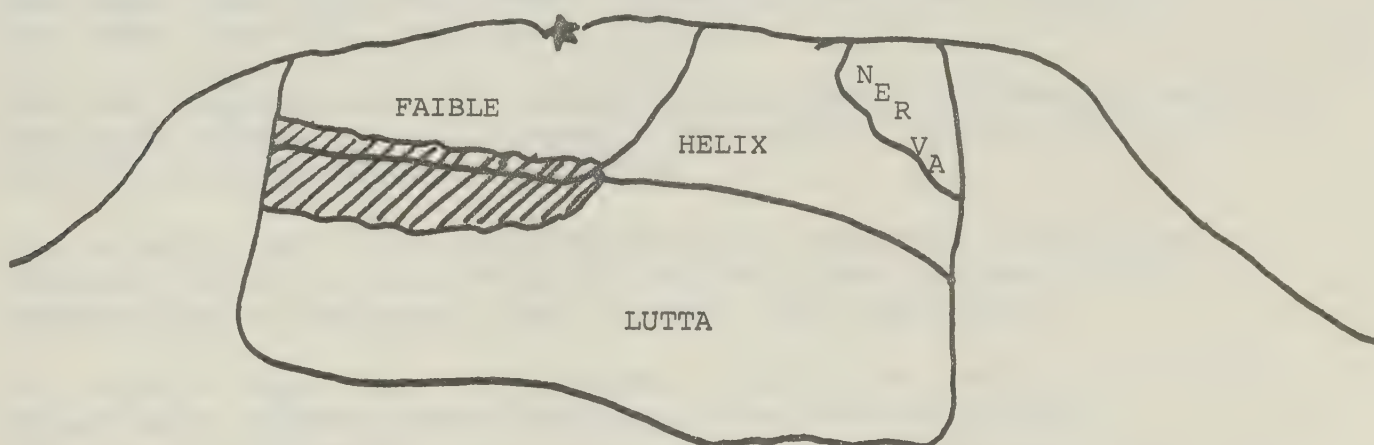
You oppose the policies of the rest of the delegation from NERVA. You will have to decide whether you want to work with this delegation or whether you want to sit with another state which has similar views. You may also decide to sit as an independent.

INDEPENDENCE
Participant's Manual
THE KANO

TOP SECRET

PROFILE: THE KANO

You are NOT a state of LIBRA but you represent a minority in FAIBLE and LUTTA in the shaded area shown below.



The Kano is a small ethnic minority which numbers 1,000,000 and you feel that it is large enough to become a state.

Both FAIBLE and LUTTA have ignored the Kano and you want to try to get the support of the conference for the creation of a new state, KANO. You have no money or votes at the conference and you will need to be very aggressive in the negotiations. You also hope to get the conference to support the creation of more states for other minority groups.

You will need vast sums of money to become a state.

RESOURCES

1,000 Bargaining Units

KANO LEADER

You are the leader of the Kano. You want statehood and you plan to work aggressively for this objective. You believe that any strong minority should be able to become a state. You know that you will have to go to the other delegates and that they will not come to you.

You are responsible for ensuring that your ministers carry out your advice at all times. YOU SHOULD LISTEN TO THEIR ADVICE BECAUSE THEY ARE EXPERTS.

You should chair the cabinet meetings and run them in an orderly fashion. You will be called upon to make public statements at various times during the simulation.

You should negotiate with NACRA. The other people in your group have already been assigned negotiation duties.

KANO EDUCATION EXPERT

Neither LUTTA nor FAIBLE has allotted funds for the education of your people even though you have asked for it for several years. You believe that at least \$5,000,000 should be devoted to the education of the Kano.

You should negotiate with NERVA.

KANO LOCAL AFFAIRS EXPERT

You are in charge of maintaining support for your policies. You want to get LIBRA and NACRA to support your demand for statehood. You have 1,000,000 supporters.

You should negotiate with LUTTA.

KANO ECONOMIC EXPERT

You are an expert on economic affairs. At the present time you have no money. You estimate that you would need at least \$20,000,000 in revenue to establish yourself as a state. Most of the trade routes between FAIBLE and LUTTA pass through your region and you feel that you deserve some of the money that comes from the trade so generated.

You should negotiate with FAIBLE and HELIX.

APPENDIX B
A SURVEY OF THE NIGERIAN
INDEPENDENCE MOVEMENT

A SURVEY OF THE NIGERIAN INDEPENDENCE MOVEMENT

Nigeria became an independent nation on October 1, 1969. Because it entailed uniting many diverse, antagonistic tribal and clannish units into one cohesive nation, independence came with difficulty. Some idea of that difficulty is apparent in the survey of events which follows. The survey reveals some factors which influenced the form of government that resulted. The most crucial years were those between 1945 and 1960 but a brief historical review of the preceding decades provides needed background. In the main, the commentary is restricted to the period before 1960 and none of the events which lead to the civil war of 1967 are considered.

In 1885, Britain's claim to the territory which is now Nigeria was recognized. For the first fifteen years, the Royal Niger Company controlled Nigeria. In 1900, however, Nigeria became a crown colony. Originally, Nigeria was ruled as two parts: the Protectorate of Northern Nigeria and the Colony and Protectorate of Southern Nigeria. The Southern Colony contained two distinct regions, the Western Region and the Eastern Region. In 1919, the two parts of Nigeria were united into the Colony and Protectorate of Nigeria. At this time, the first World War had ended and the League of Nations asked Britain to govern the Northern and Southern Cameroons as mandates. Because of their proximity to Nigeria, these two regions were added to Nigeria,

the Southern Cameroons being added to the Eastern region and the Northern Cameroons to Northern Nigeria.

The long period of Nigerian constitutional development began in 1900. Britain adopted a policy of encouraging slow but increasing Nigerian influence on governing councils. Between 1919 and 1947 the representation on the central governing body changed from thirty Britons and six Nigerians to twenty-seven Britons and twenty-eight Nigerians. In 1946, a decade of rapid constitutional change began. The so-called "Richard's Constitution" proved unworkable almost immediately after its implementation in 1946. The Nigerian leaders rightfully criticized this document because it had been prepared without consulting the people whom it was to affect, the Nigerians themselves. Complying with Nigerian demands, Britain replaced Governor Richard with a less controversial figure, Governor MacPherson. He set machinery in motion whereby village councils, provincial bodies and regional councils would be consulted prior to the preparation of a new constitution. To reduce tribal tension, the resulting MacPherson Constitution created a federal system of government in Nigeria. It provided a central governing body composed of forty-five representatives from the Northern Region, and thirty-three members from each of the Western and Eastern Regions. Although efforts had been made to involve the Nigerians in the writing of their constitution, the MacPherson Constitution soon proved to be as ineffective as had the Richard's Constitution. The reasons which

contributed to the breakdown of the MacPherson Constitution follow. First, political parties were regionally based and the central governing body became fractured along ethnic lines. Second, most of the shrewd political leaders--Azikiwe, the Ibo leader, Awolowo, the Yoruba leader, and the Sardauna of Sokoto, the Hausa leader--were involved in governing their respective regions and showed no interest in becoming involved in the central government. Third, the early 1950's saw an upsurge of tribal loyalty and concurrently an increase in inter-tribal jealousy. Fourth, the Northern Region became disillusioned because it had less than one-half of the representation in the central government though it included over one-half of the population of Nigeria. Finally, 1953 brought on a crisis which was to end the MacPherson Constitution only two years after its inception. The Eastern Region, dominated by the Ibo tribe, and the Western Region, led by the Yorubas, jointly demanded independence by 1956. The Northern Region, backward and lacking in resources, became fearful of too rapid independence and demanded secession. Britain, attempting to avert such a sure means of causing the disintegration of Nigeria as a political entity, quickly called a series of Constitutional Conferences. The first of these was held in London in 1953. Conferences in 1953, 1954, 1957 and 1958 assured a federal system of government for Nigeria. The Eastern Region and the Western Region were granted self-government in 1957 as a means of decelerating their

demands for immediate Nigerian independence. The North was placated by this move and by Britain's assurance that independence would be delayed until the Northern Region had decided that it could compete equitably.

The Northern Region developed more quickly than had been expected, either by herself or by others, and regional self-government was secured in 1959 only two years later than had been the case in the Southern regions. In January of 1960 the Nigerian House of Representatives and the Senate jointly asked Britain to grant independence to Nigeria. Britain agreed. On October 1, 1960 Nigeria became an independent entity within the Commonwealth of Nations. One year later the Southern Cameroons seceded and joined the Cameroons. On October 1, 1963, Nigeria declared herself a republic and a new Mid-West state was created from the northern part of Yorubaland.

This then outlines briefly the historical development of Nigeria. For the convenience of the reader a timeline of these events follows.

- 1885 - British claim to Nigeria recognized.
 - Rule by the Royal Niger Company began.
- 1900 - Nigeria became a crown colony in two parts:
 - the Protectorate of Southern Nigeria and the Colony and Protectorate of Southern Nigeria.
- 1919 - North and South united into the Colony and Protectorate of Nigeria.

- First Constitution provided the following representation on the governing body: 30 Britons; 6 Nigerians.
- 1919 - South and North Cameroons added to Nigeria.
- 1922 - Constitution provided the following representation on the governing body: 36 Britons; 10 Nigerians.
- 4 Nigerians were elected.
- 1946 - Richard's Constitution provided the following representation on the governing body: 27 Britons; 28 Nigerians.
- 4 Nigerians were elected.
- 1951 - MacPherson Constitution provided for a Cabinet system of government including the following representation on the governing bodies:
 - a) a Council of Ministers with 12 Nigerians and 4 Britons.
 - b) a House of Representatives with 136 Nigerians and 6 Britons.
- 1953 - First Constitutional Conference held in London.
- 1954 - Constitutional Conference resumed in Lagos.
- 1957 - Constitutional Conference held.
- First Nigerian Prime Minister appointed.
- Senate created.
- Eastern and Western Regions became self-governing.

- 1960 - October 1 - Nigerian Independence declared.
- 1961 - Southern Cameroons seceded.
- 1963 - October 1 - Nigeria became a republic.

THE STATES AND TRIBES OF NIGERIA

Nigeria is a country of numerous diverse tribal groups. The total number of such groups is estimated to be anywhere from 300 to over 500 and the tribes range in size from about ten to well over ten million persons. The three largest and most dominant of the tribal groups were the Hausa of Northern Nigeria, the Ibo of Eastern Nigeria and the Yoruba of Western Nigeria. Together these three tribes numbered over fifty percent of the total population of Nigeria and each dominated the political party structure and government of its respective region. Within each state a number of large minority groups existed and many agitated for statehood. Although the number of states was not increased until 1963, some Nigerian leaders saw the justification for creating as many as fifteen states based on ethnic lines. Below is a brief description of the regions as they were before independence.

The Northern Region

Three major tribes occupied the Northern Region. The Hausa were the largest and most dominant group. They practised the Islamic religion and had the Muslim respect for land. Most of the Hausa were farmers although skilled

artisans and specialized craftsmen were also prominent. The basic social unit of the Hausa was the extended family, dominated by its male members. Rule of the tribe was dynastic and social class distinction were strictly observed.

Another of the Northern tribes, the Fulanis originally had conquered the Hausa. Unlike the results of most military conquests however, the Fulanis gradually were assimilated to the Hausa culture. The Fulanis scattered throughout Northern Nigeria, some becoming peaceful nomadic herders, others settling as agriculturalists and intermarrying with the Hausa. Like the Hausa, the Fulanis are dynastically oriented. Traditional rulers dominated the provincial councils.

The Kanuris are a smaller Northern tribe. Like the Hausa in many ways, the Kanuris practise the Islamic religion, are farmers, traders and craftsmen. Most of the Kanuris are concentrated in one of the provinces of the Northern Region.

The Eastern Region

The two dominant tribes of the Eastern Region were the Ibos and the Ibibios. By far the most powerful of the two were the Ibos. Although the region is densely forested, the predominant occupation of the Ibos was subsistence farming. Farm land was controlled by groups of kinsmen and the chief social unit was the patrilineal extended family. Unlike their Northern neighbors, the Ibo are Christians who were converted by Roman Catholic missionaries. The Ibos

were aggressive and ambitious and quickly adapted to Western culture accepting especially the Western respect for education. When the Ibos expanded too rapidly, great pressure was exerted on the land. As a result, many Ibos migrated to the other regions of Nigeria where their aggressiveness and clannishness often caused resentment.

The Ibibios were found in the southern part of the Eastern region. They shared many common characteristics with the Ibo, but being on the Atlantic, the Ibibios were also traders. The area, however, failed to prosper and was one of the most depressed regions in Nigeria.

The Western Region

The Yorubas of Western Nigeria were long the most advanced tribe in Nigeria, although the Ibos attempted to reduce the difference. Although the basic social unit of the Yorubas was the extended family, they early organized into a system of towns. The Yorubas became the urban dwellers and the traders of Nigeria. Their religious background is the least homogeneous of that of any Nigerian tribe, with Christianity, Islam and animism represented. As with the other tribes a majority of the Yoruba farmed. The tribe dominated the economic life of Nigeria.

Another tribe, the Edos, lived in the northern part of the Western Region. Although they shared many characteristics with the Yorubas, the Edos had a strong sense of political unity. Most were subsistence farmers

but the existence of major trading routes through their region developed commercial contacts and increased inter-town trade. The Edos marketed characteristic brass, wood and ivory work throughout the world by means of these trade routes. This tribe, in 1963, led the Mid-Western Region to statehood.

That diversity existed in pre-independent Nigeria, is evident. Religious, language and cultural differences often seemed insurmountable obstacles to unity. The political party system also added to the difficulties. Despite nominally declaring themselves to be national parties, most paralleled ethnic group lines.

Before discussing Britain's place in the Nigerian independence movement, it proves helpful to examine the role of political parties in the unification of Nigeria. Some of the major leaders will be mentioned in the discussion.

THE POLITICAL PARTIES

The two southern regions of Nigeria became politically oriented much sooner than did the north. Although the first political party was established in 1923, it was 1940 before permanence began to characterize the political party movement. The first significant political party was the National Youth Movement (NYM), comprised of young, western-educated Yoruba and Ibo. Inter-tribal tension soon caused dissention and the Ibo minority, led by ardent nationalist

and radical newspaperman, Nnamdi Azikiwe, broke from the NYM. These vocal and militant "Zikists" as they were called, began demanding independence from Britain and their demands reached a peak in 1947. The increasing militancy of the "Zikists" soon lost the support of Azikiwe and the movement diminished in significance. Azikiwe then turned to the task of founding the first permanent political party. In 1948, the National Council of Nigeria and the Cameroons (NCNC), an Ibo-centered organization, led Nigeria on her long "path to freedom (Awolowo, 1947)."

Azikiwe was accompanied into the political arena by Obafemi Awolowo, the champion of the Yoruba nationalists. Awolowo founded Egbe Omo Oduduwa in 1945. This Yoruba cultural organization aimed to "unite the various clans and tribes in Yorubaland and generally create and actively foster a . . . modern and efficient Yoruba state with its own individuality within Nigeria [p. 70]." (Schwarz, 1965) This organization was converted into a political party, the Action Group (AG), in 1951.

The political activity of the southern regions and the North's increasing fear of southern domination, awakened a reaction in the Northern state. The traditional leaders of the Northern tribes became a conservative force on the political scene. They supported the continuation of British rule and, because of the size of their population, demanded at least one-half of the seats in the central legislative

body. The Northern People's Congress (NPC) turned the independence movement into a contest between north and south. Their demands for strong regional governments helped to ensure that a federal system of government would be adopted for Nigeria.

The constitutional development of the 1950's was dominated by the three political parties named above. In addition, minority groups sought attention for their causes through the formation of political parties. Younger and more radical Northerners resented the domination of the North by the NPC and decided to form the Northern Elements Progressive Union (NEPU). This group resented the continued retention of tribal authority and allied itself with the NCNC in demanding strong central government for Nigeria. The Ibo minority in the Western Region became active NCNC members and worked to further their aims in the Western Region. Finally, in the East, a radical, socialist group formed the Nigerian Independence Party (NIP).

The five political parties just mentioned represented the three regions of Nigeria at the Constitutional Conferences. Delegations from each state were chosen to represent the proportional strength of the political parties in the state legislatures. The chart on the following page shows the composition of each regional delegation.

All the constitutional conferences were characterized by dissent and disagreement among parties and regions.

Region	Majority Party	Majority Party Representation	Minority Party	Minority Party Representation
Eastern	NCNC	4	NIP	2
Western	AG	5	NCNC	1
Northern	NPC	5	NEPU	1

Alliances formed and disintegrated rapidly. Had it not been for Britain's careful handling of this volatile mixture, Nigeria would probably have been permanently divided.

The first conference in 1953 ended with substantial concessions made by all regions. This resulted in the reaching of agreement on several central problems. The federal structure of government was eventually accepted by all the major parties as a reasonable compromise. Except for the representative of the National Independence Party, who withdrew in disgust, the conference delegates agreed that the central government should control defense, external relations, foreign trade, water and the Central Court of Justice. Higher education, industrial development, electric power and the regulation of labour were to be shared as concurrent powers. All the residual powers of government were assigned to the regions.

In 1954, independence was assured when the resumed Constitutional Conference reached agreement on the remaining issues of importance. Fiscal arrangements were satisfactorily completed and the public service and judiciary were

regionalized. Events moved quickly from this point. The Western and Eastern regions were committed to achieving self-government by 1956 and, although delayed a year, reached that objective in 1957. In the same year, the first Nigerian Prime Minister, Abubakar Tafawa Balewa (NPC) was elected. Finally, the Northern region gained self-government in 1959 and federal independence followed in 1960.

Only two controversial issues marred an otherwise compromise-minded conference. First, in appeasement to the North's fear that its southern trade routes would be closed if the Western region ever seceded, Lagos, the capital of Nigeria, was designated federal territory. The Western region never accepted this loss. Second, the Western region agitated for the inclusion of a secessionist clause in the constitution. The East and North combined to defeat the motion.

Britain's position throughout this movement was one of guidance. At the time that the demands for independence began in earnest, Britain felt that Nigeria was not ready for nationhood. Nonetheless, the British government appreciated the sincerity of the demands and soon saw the necessity of convening the constitutional conference. Through her persistence and insistence upon unity, Britain was able to create a nation from what Awolowo described as a "geographic expression." Historically and culturally each region of Nigeria differed. Had circumstances of colonialism been

different, each of the regions could have formed a separate nation with its own identity. For a time in the early 1960's the political state that resulted from the union of such diverse tribal groups was looked to as a symbol of what could be accomplished in African states. Recently, that unity was shattered in one of the most devastating events possible, a civil war.

The road to Nigerian independence illustrates some of the problems common to the unification of nations, especially the newer African states. It was for this illustration that Nigeria was used as the model for the game of INDEPENDENCE.

APPENDIX C
QUESTIONNAIRE
COMPLETED BY PARTICIPANT'S
IN THE INDEPENDENCE SIMULATION

QUESTIONNAIRE

1. I think that the introduction to the simulation should have been (circle one):
 - a. longer
 - b. shorter
 - c. the length it was
2. I think that the following things should be added to the game:
 - a.
 - b.
 - c.
 - d.(add more on the back of this sheet if you need to).
3. I think that the following things should be taken out of the game:
 - a.
 - b.
 - c.
 - d.
4. I found the following things difficult to understand: (check those that you found difficult and write comments if you wish).

Comments

- _____ The introduction.
- _____ The background information.
- _____ The description of the Crisis.
- _____ The rules.
- _____ The regional profile for my region.
- _____ My role description.
- _____ Activity #1 - Setting Goals.

- _____ Activity #3 - Analyzing Strategies.
- _____ Negotiating.
- _____ Voting.
- _____ The forms - please list the ones that were most difficult.
- _____ The bargaining units.
- _____ The distribution of money.

5. I found the following things easy to understand:
(check those that you found to be easy and write comments if you wish).

Comments

- _____ The introduction.
- _____ The background information.
- _____ The description of the Crisis.
- _____ The rules.
- _____ The regional profile of my region.
- _____ My role description.
- _____ Activity #1 - Setting Goals.
- _____ Activity #3 - Analyzing Strategies.
- _____ Negotiating.
- _____ Voting.
- _____ The forms.
- _____ The bargaining units.
- _____ The distribution of money.

6. I found my role which was _____ for _____
_____ region, (difficult) (easy) to understand because _____

7. I think I played my role (well) (poorly) because _____

8. I think the person playing this role needs (more) (less)
information because: _____

9. I think that my role was (important) (unimportant) to the success of our group because: _____
- _____
10. I think that our group has an (important) (unimportant) role in this game because _____
- _____
11. I think that this game is (too difficult) (too easy) (just right) for grade eight pupils because _____
- _____
12. I think that I would play this game (better) (the same) (worse) if I were to play it again because _____
- _____
13. I found this game (interesting) (uninteresting) because _____
- _____

If you have any suggestions for improving the game please feel free to add them below and on the back.

Suggestions:

B30000